



Product Details 2017

ON-LINE INSTRUMENTATION



a xylem brand

EFFECTIVE FROM JANUARY 2017

05/2017



by Order No.	4
Dissolved Oxygen	9
pH/ORP	16
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by Order No.

Order No.	Model	Pricelist page
000 670Y	PF 105	85
107 040Y	VARiON®Plus 700 IQ	32, 60
107 042Y	VARiON® Ref	32, 33
107 044Y	VARiON®Plus NH4	32
107 045Y	VARiON®Plus NO3	32, 33
107 046Y	VARiON®Plus K	32
107 047Y	VARiON®Plus Cl	32, 33
107 050Y	VARiON®/ES-1	32, 33
107 052Y	VARiON®/ES-2	32, 33
107 056Y	VARiON® 700 IQ-SK	33
107 057Y	VARiON®/Epack	33
107 060Y	VARiON®Plus A comp SET NH4	32, 60
107 062Y	VARiON®Plus N comp SET NO3	32, 60
107 066Y	VARiON®Plus AN/A comp SET NH4 & NO3	32, 60
107 068Y	VARiON®Plus AN/N comp SET NH4 & NO3	32, 60
107 070Y	AmmoLyt® Plus 700 IQ	32, 60
107 071Y	AmmoLyt® Plus SET	32, 60
107 072Y	AmmoLyt® Plus SET/Comp	32, 60
107 080Y	NitraLyt®Plus 700 IQ	32, 60
107 081Y	NitraLyt®Plus SET	32, 60
107 082Y	NitraLyt®Plus SET/Comp	32, 60
108 060Y	D 530	100
108 073Y	D 300/pH	100
108 540Y	S 200	98, 92
108 542Y	S 200/2	92
108 700Y	TEP 4	17,
108 702Y	TEP 7	17
108 703Y	TEP 10 Trace	17
108 704Y	TEP 10	17
109 115Y	SensoLyt® SEA	16, 59
109 117Y	SensoLyt® ECA	16, 59
109 118Y	SensoLyt® SEA-HP	16, 59
109 119Y	SensoLyt® DWA	16, 59
109 125Y	SensoLyt® PtA	16, 59
109 170Y	SensoLyt® 700 IQ	16, 59
109 171Y	SensoLyt® 700 IQ SW	16, 59
109 173Y	SensoLyt® 700 IQ/SET	59
109 174Y	SensoLyt® 700 IQ/SET1	18, 59
109 177Y	SensoLyt® 700 IQ F	59
109 194Y	SensoLyt® 700-SK	17
109 232Y	GWA	92
109 260Y	UA 55	89
109 261Y	UA 130	89
109 263VY	UA-SO Armatur	** 89
109 265Y	UA/DS	89
109 270Y	EH/P 170	92
109 271Y	EH/R 170	92
109 272Y	EH/F 170-1,5	98, 92
109 273Y	EH/F 170-2,5	92
109 274Y	EH/W 170	92
109 276Y	BE/M 170	92
109 278Y	BE/R 170	92
109 279Y	BE/R 170-D	92
109 280Y	BE/ST 170	92
109 281Y	BE/ST 170-R	92
109 283Y	BE/ST 170-M	92

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109 284Y	SD/K 170	66, 92
109 286Y	MR/SD 170	66, 92
109 288Y	MS/SD 170	92
109 289Y	MS/RKH 170	92
109 290Y	MS/KK 170	92
109 291Y	CHS	92
109 295Y	SSH/IQ	66, 92
109 304Y	IN/SET1	92
109 305Y	IN/SET2	92
109 306Y	IN/SET3	92
109 317Y	EH/SW	98, 89
109 320Y	EH/U 170	98, 89
109 323Y	EH2/U 170	89
109 325Y	EH3/U 170	89
109 360Y	EH/W 171	98
109 361Y	EH/W 172	98
109 362Y	EH/WB	98
109 363Y	EH/WT-D30	98
109 365Y	EH/W 173	98
109 366Y	EH/W RM	98
109 367Y	EH/WB-40	New 98
109 740Y	RH 28	17
180 102Y	ZBK/NH500/TC	35
201 640Y	TriOxmatic® 700 IQ	9, 59
201 641Y	TriOxmatic® 700 IQ SW	9, 59
201 643Y	TriOxmatic® 700 IQ F	10
201 644Y	TriOxmatic® 701 IQ	9, 59
201 646Y	TriOxmatic® 702 IQ	9, 59
201 650Y	FDO 700 IQ	9, 59
201 652Y	FDO® 700 IQ SW	9, 59
201 653Y	FDO 701 IQ SW	9, 59
201 654Y	SC-FDO® 700	9
201 655Y	SC-FDO® 701	9
201 656Y	FDO® 700 IQ F	9
201 658Y	FDO® 701 IQ F	9
201 660Y	FDO 701 IQ	9, 59
202 620Y	ZBK 600	10
202 621Y	ZBK 25i	10
202 850Y	WP 600/2	10
202 852Y	WP 25i/2	10
203 680Y	SF 300	10
203 745Y	D 700/N	100
203 747Y	D 702/N	100
203 749Y	DMS/N	100
203 751Y	EBS 700-DU/N	100
203 753Y	EBST 700-DU/N	100
203 754Y	EBST 700-DU/ND	100
203 755Y	ESS 700 VA/N	100
203 757Y	ESS 700 VA/10	100
203 761Y	ADA-DF 1	104
203 767Y	ADA-DF 4	104
203 771Y	ADA-DF 6	104
203 773Y	ADA-DF 7	104
203 777Y	ADA-DF 9	104
203 779Y	ADA-DF 10	104
203 781Y	ADA-DF 11	104
203 787Y	ADA-DF 14	104
203 789Y	ADA-DF 15	104
205 200Y	RL-AG/Oxi	10
205 212Y	ELY/A	101

* Sensor variation with different cable length („-SO“); Additional costs depending on cable length.
 ** UA-SO Sensor extension assembly with user-defined length; Additional costs depending on cable length.



Order No.	Model	Pricelist page
205 253Y	MSK FDO	9
205 254Y	MSK FDO® CS	10
302 500Y	TetraCon® 700 IQ	22, 59
302 501Y	TetraCon® 700 IQ SW	223, 60
302 507Y	TetraCon® 700 IQ F	22
470 000Y	MIQ/TC 2020 XT	66
470 016Y	MIQ/TC 2020 XT-H3	66
470 017Y	MIQ/TC 2020 XT-H3 C6	66
471 020Y	MIQ/MC3	New 66
471 022Y	MIQ/MC3-MOD	New 66
471 023Y	MIQ/MC3-PR	New 66
471 026Y	MIQ/3-MOD	New 66
471 027Y	MIQ/3-PR	New 66
472 005Y	DIQ/JB	75
472 007Y	DIQ/CHV	33, 34, 47, 75, 107
472 110Y	DIQ/S 282-CR3	New 75
472 111Y	DIQ/S 282-PR	New 75
472 112Y	DIQ/S 282-MOD	New 75
472 113Y	DIQ/S 282-CR3-E	New 75
472 114Y	DIQ/S 282-EF	New 75
472 120Y	DIQ/S 282-CR3/24V	New 75
472 121Y	DIQ/S 282-PR/24V	New 75
472 122Y	DIQ/S 282-MOD/24V	New 75
472 123Y	DIQ/S 282-CR3-E/24V	New 75
472 124Y	DIQ/S 282-EF/24V	New 75
472 130Y	DIQ/S 284-CR6	New 75
472 131Y	DIQ/S 284-PR	New 75
472 132Y	DIQ/S 284-MOD	New 75
472 133Y	DIQ/S 284-CR6-E	New 75
472 134Y	DIQ/S 284-EF	New 75
472 140Y	DIQ/S 284-CR6/24V	New 75
472 141Y	DIQ/S 284-PR/24V	New 75
472 142Y	DIQ/S 284-MOD/24V	New 75
472 143Y	DIQ/S 284-CR6-E/24V	New 75
472 144Y	DIQ/S 284-EF/24V	New 75
480 004Y	MIQ/PS	66, 75
480 006Y	MIQ/24V	66, 75
480 008Y	MIQ/JB	66, 75
480 010Y	MIQ/JBR	66
480 013Y	MIQ/R6	66, 75
480 014Y	MIQ/CR3	66, 75
480 015Y	MIQ/C6	66, 75
480 016Y	MIQ/IC2	66, 75
480 017Y	Cleaning Air Box - 115 VAC	33, 34, 47, 107
480 018Y	MIQ/CHV PLUS	33, 34, 47, 66, 76, 107
480 019Y	Cleaning Air Box - 230 VAC	33, 34, 47, 107
480 023Y	MIQ/WL PS	66, 76
480 025Y	MIQ/WL PS SET	66, 76
480 026Y	AF/Cleaning Air Box	107
480 027Y	RM/Cleaning Air Box	107
480 040Y	SACIQ-1,5	10, 17, 22, 26, 33, 34, 47, 567, 62
480 041VY	SACIQ-SO	*** 10, 17, 22, 26, 33, 34, 47, 56, 62
480 042Y	SACIQ-7,0	11, 18, 23, 27, 34, 35, 48, 57, 63
480 044Y	SACIQ-15,0	10, 17, 22, 26, 33, 34, 47, 57, 62
480 045Y	SACIQ-20,0 SW	10, 17, 22, 26, 62
480 046Y	SNCIQ	66, 76

Order No.	Model	Pricelist page
480 047Y	SNCIQ/UG	66, 76
480 048Y	PMS/IQ	66
480 050Y	THS/IQ	66
480 051Y	EW/1	66
480 052Y	WMS/IQ	66
480 060Y	SACIQ-50,0 SW	10, 17, 22, 26, 62
480 064VY	SACIQ-SO SW	*** 10, 17, 22, 26, 62
480 065Y	SACIQ-Plug	10, 17, 22, 26, 33, 34, 47, 56, 62
480 066Y	SACIQ-25,0 SW	10, 17, 22, 26, 62
480 068Y	SNCIQ-100	67, 76
480 069Y	SNCIQ-200	67, 76
480 070Y	SNCIQ-250	67, 76
480 072Y	SNCIQ-500	67
480 075Y	SNCIQ/UG-250	67, 76
480 080Y	VIS FT-1	34, 47, 98
480 081Y	VIS FT-1/RS	34, 47, 98
480 100Y	WA 700/10	106
480 102Y	WA 700/2	106
480 104Y	ESS-WA 700/ST	106
480 106Y	ESS-WA 700/VA	106
480 108Y	ADA-WA 1	106
480 112Y	ADA-WA 3	106
480 114Y	ADA-WA 4	106
480 116Y	WA/BV	106
480 118Y	WA/Epack	106
481 031Y	VIS Set Brushes/1mm	34, 47
481 032Y	VIS Set Brushes/5mm	34, 47
481 034Y	UV 701 IQ NOx	33, 61
481 035Y	UV 705 IQ NOx	33, 61
481 036Y	UV 701 IQ SAC	47, 62
481 038Y	UV 705 IQ SAC	47, 62
481 044Y	NitraVis 701 IQ	34, 61
481 045Y	NitraVis 701 IQ TS	34, 61
481 046Y	NitraVis 705 IQ	35, 61
481 047Y	NitraVis 705 IQ TS	35, 61
481 048Y	CarboVis 701 IQ	47, 61
481 049Y	CarboVis 701 IQ TS	47, 61
481 050Y	CarboVis 705 IQ	47, 61
481 051Y	CarboVis 705 IQ TS	48, 61
481 052Y	NiCaVis 705 IQ	35, 48, 61
481 054Y	NiCaVis 701 IQ NI	34, 47, 61
481 055Y	NiCaVis 705 IQ NI	34, 47, 61
481 056Y	NitraVis 701 IQ NI	34, 61
481 057Y	NitraVis 705 IQ NI	34, 61
481 071Y	VIS/CT	34, 47
481 073Y	VIS Set/EH	98
481 074Y	VIS/CV	34, 47
481 075Y	SET/AP	34, 47
481 077Y	ST-1	34, 47
481 078Y	ST-2	34, 47
481 079Y	VIS/CS	34, 47
481 080Y	VIS Set-F	989
481 200Y	IFL 700 IQ	56, 62
481 201Y	IFL 701 IQ	56, 62
481 206Y	IFL-E	98
481 207Y	IFL-RM	98
481 208Y	IFL-PM	98
505 123Y	S/CH	92
505 124Y	CH/SO	**** 92

* Sensor variation with different cable length („-SO“): An additional charge of € 13.40 per meter has to be added to the base price.



Order No.	Model	Pricelist page
505 544Y	KI/pH-MIQ/S	89
505 570Y	KI/LF-0,9/MIQ	89
505 571Y	KI/LF-0,7/MIQ	89
505 572Y	KI/LF-0,4/MIQ	89
505 573Y	KI/LF-0,1/MIQ	89
600 007Y	VisoTurb® 700 IQ F	26
600 010Y	VisoTurb® 700 IQ	26, 60
600 011Y	VisoTurb® 700 IQ SW	26, 60
600 012Y	ViSolid® 700 IQ	26, 60
600 013Y	ViSolid® 700 IQ SW	26, 60
600 014Y	Standard 1000 FNU	26
600 015Y	Standard 4000 FNU	26
810 000Y	PurCon®/230	85
810 002Y	SET1/PurCon®	85
810 005Y	AF/PurCon®	85
810 008Y	PurCon®/115	85
810 050Y	PurCon® IS/2-230	# 85
810 051Y	PurCon® IS/4-230	# 85
810 065Y	PCIS-PL5/H	85
810 066Y	PCIS-PL10/H	85
810 067Y	PCIS-PL20/H	85
810 071Y	PCIS-MSK	85
810 073Y	PCIS-MSG	85
810 117Y	SW/P102	85
820 004Y	OP 210/ MB 1	50
820 005Y	OP 210/ MB 2	50
820 006Y	OP 210/ MB 3	50
820 007Y	ON 210	35
820 008Y	OA 110	35
820 009Y	ON 510	36
820 010Y	OS 210	35
820 011Y	OP 510	51
820 042Y	TresCon® without module	81
820 043Y	TresCon® Uno without module	83
820 065Y	FT/PC	85
820 066Y	LSet/PC	85
820 067Y	SL/SET/PC	85
820 068Y	FT/PCIS-2	85
820 069Y	SLSset/PCIS	85
820 101Y	TCU/A111	83
820 103Y	TCU/N511	83
820 104Y	TCU/P211-MB1	83
820 105Y	TCU/P211-MB2	83
820 106Y	TCU/P211-MB3	83
821 004Y	TC/ÜB 1	81
821 008Y	TC/PU 1	81
821 017Y	BEH/T 1,5	35, 36, 51
821 019Y	BEH/T 10	35, 36, 51
821 025Y	MWSet/A111	35
821 055Y	BSet/A111	35
821 056Y	BSet/ N211	35
821 057Y	BSet/ N511	36
821 058Y	BSet/P211	51
821 059Y	BSet/P511	51
821 068Y	KB/P511	51
821 071Y	R/ ADD/TC	51
821 075Y	R/ A111	35, 36, 51
821 085Y	R/ N511	36
821 091Y	R/ P211	51
821 096Y	RD/P511	51

*** Sensor variation with different cable length („-SO“): Additional costs depending on cable length.

**** Chain per meter. Additional costs depending on chain length.

For system PurCon® IS/2-230 resp. PurCon® IS/4-230 a permeate line PCIS-PL... must be ordered separately (see accessories PurCon®/PurCon® IS: Order No. 810 060 - 810 067).

Order No.	Model	Pricelist page
821 097Y	RC/P511	51
821 098Y	RB/P511	51
821 099Y	RA/P511	51
821 100Y	S/ AI - A111	35
821 101Y	S/ All - A111	35
821 102Y	S/ BI - A111	35
821 103Y	S/ BII - A111	35
821 112Y	S/ AI - N 211	35
821 113Y	SSet/ N211	35
821 117Y	S/ B - N511	36
821 121Y	S/ BI - P211	51
821 122Y	S/ BII - P211	51
821 123Y	S/ BIII - P211	51
821 138Y	RSet/A111-1	35
821 140Y	RSet/ A111-2	35
821 143Y	RSet/ N211	35
821 156Y	C/TCM1	35, 36, 51
821 160Y	C/ A111	35
821 163Y	C/ N211	36
821 165Y	C/N211/FE	36
821 175Y	EL/ TC	36, 51
821 195Y	Wpack/ P211	52
821 197Y	Wpack/ A111	31
821 199Y	Wpack/ N211	36
821 201Y	Wpack/P511	51
821 203Y	Wpack/ N511	36
821 210Y	NH500/TC	35
821 212Y	MC/NH500/TC	35
821 220Y	ELY/NH	35
821 940Y	Filter/PC	52
821 941Y	FM-Case/PC	52
821 954Y	RL 20	52
821 955Y	RL 115-20	52
821 956Y	RL 230-20	52
821 957Y	SL 20	52
821 959Y	SL 115-20	52
821 960Y	SL 230-20	52
821 964Y	RL 10	52
821 965Y	RL 115-10	52
821 966Y	RL 230-10	52
821 968Y	FM-B	52
821 969Y	Filter-REP	52
821 970Y	ST-BT	52
821 971Y	ST 0.0	52
821 972Y	Filter	52
821 973Y	FM-Case	52
821 974Y	RL 2	52
821 975Y	RL 115-2	52
821 976Y	RL 230-2	52
821 977Y	SL 10	52
821 978Y	SL 5	52
821 979Y	SL 115-10	52
821 980Y	SL 230-10	52
821 981Y	SL 115-5	52
821 982Y	SL 230-5	52
821 983Y	FM-Adapter	52
821 984Y	Filter-CL	52
821 985Y	M-EXT 1.5	52
821 986Y	M 1.5	52
821 987Y	FM	52
821 988Y	RM	52



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Order No.	Model	Pricelist page
821 989Y	WM	52
821 990Y	LED	52
821 991Y	SM	52
821 992BY	T SET B	52
821 993Y	PT	52
821 994Y	PM	53
821 995Y	ST 20.0	53
821 996Y	ST 8.0	53
821 997Y	ST 1.6	53
821 998Y	CL 1.0	53
821 999Y	RE 2.5	53
830 860Y	VB 105	85
850 007Y	P 105	85
850 008Y	FGT 626-2 = P101	85
850 010Y	FGT 615-2 = P102/1	85
850 017Y	PZ 105	85
850 110Y	BS-P102	85
850 115Y	ADA-PS	85
8P-000Y	P 700 IQ-I115	52, 62
8P-001Y	P 700 IQ-O115	52, 62
8P-010Y	P 700 IQ-P1115	52, 62
8P-011Y	P 700 IQ-PO115	52, 62
8P-100Y	P 700 IQ-I230	52, 62
8P-101Y	P 700 IQ-O230	52, 62
8P-110Y	P 700 IQ-PI230	52, 62
8P-111Y	P 700 IQ-PO230	52, 62
900 107Y	CH	33, 107
900 111Y	CH/EpacK	107
902 885Y	USB adapter TresCon® MIQ	81, 83
902 887Y	MIQ/TM/SET	67
902 888Y	ADA/D-SUB	66, 76
BA43108dY	BA/TC/d	81
BA43109dY	BA/P211/d	51
BA43109eY	BA/P211/e	51
BA43110dY	BA/N211/d	36
BA43110eY	BA/N211/e	36
BA43111dY	BA/A111/d	35
BA43111eY	BA/A111/e	35
BA43112dY	BA/N511/d	36
BA43112eY	BA/N511/e	36
BA43120dY	BA/S211/d	36
BA43120eY	BA/S211/e	36
BA43121dY	BA/511/d	51
BA43121eY	BA/511/e	51

IQ SENSORNET – measurement parameters at a glance



Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	Ammolyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Temperature	●	●	●	●			●	●	●									
Dissolved Oxygen (electrochemical)	●																	
Dissolved Oxygen (optical)		●																
pH			●															
ORP			●															
Conductivity				●														
Salinity				●														
TDS				●														
Turbidity (optical)					●													
TSS (optical)						●				●		●						
Sludge Level																	●	
Ammonium (ion-selective)							●		●									
Nitrate (ion-selective)								●	●									
Nitrate (optical/spectral)										●	●		●	●		● [†]		
Nitrite (optical/spectral)										●				●				
Potassium (ion-selective)							●		●									
Chloride (ion-selective)								●	●									
COD (optical/spectral)												●	●	●				
BOD (optical/spectral)												●	●	●				
TOC (optical/spectral)												●	●	●				
DOC (optical/spectral)												●	●	●				
SAC (optical/spectral)												●	●	●	●			
UVT (optical/spectral)												●	●	●	●			
Orthophosphate (optical/wet chemical)																		●

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

† NO₂-N is included in the measurement result

Dissolved Oxygen

Dissolved Oxygen

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	Sensolyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Temperature	●	●	●	●			●	●	●									
Dissolved Oxygen (electrochemical)	●																	
Dissolved Oxygen (optical)		●																

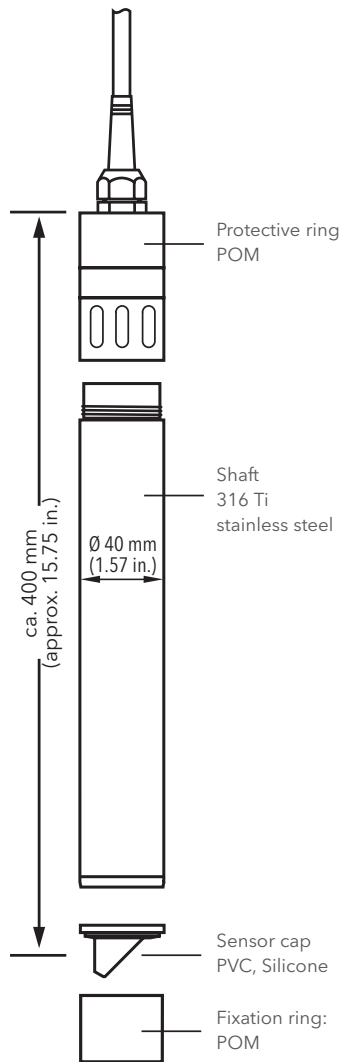
* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Model	Description	Order No.
Optical DO Sensor FDO® 700 IQ		
FDO 700 IQ	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O ₂ input in wastewater treatment plants, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 700, without connection cable (SACIQ order separately)	201 650Y
FDO® 700 IQ SW	Digital calibration free optical D.O. sensor (universal use). Optimized for measuring and controlling the O ₂ input in seawater applications, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 700 and protective cap MSK FDO®, without connection cable (SACIQ order separately).	201 652Y
FDO 701 IQ SW	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for measuring/controlling the O ₂ input in seawater applications, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 701 and protective cap MSK FDO®, without connection cable (SACIQ order separately)	201 653Y
FDO® 700 IQ F	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O ₂ input in wastewater treatment plants. Factory calibrated system composed of sensor FDO® 700 IQ F and membrane cap SC-FDO® 700, with fixed cable. Connection of a SACIQ-cable is not possible.	201 656Y
FDO® 701 IQ F	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O ₂ input in wastewater treatment plants. Factory calibrated system composed of sensor FDO® 700 IQ F and membrane cap SC-FDO® 700, with fixed cable. Connection of a SACIQ-cable is not possible.	201 658Y
FDO 701 IQ	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O ₂ input in waste water treatment plants, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 701, without connection cable (SACIQ order separately).	201 660Y
Accessories for FDO® 700 IQ		
SC-FDO® 700	Universal sensor cap for FDO® 700 IQ/700 IQ SW	201 654Y
SC-FDO® 701	Fast response time sensor cap for FDO® IQ 701/IQ 701 SW	201 655Y
MSK FDO	Membrane protective cap, provides protection against fishes and rock slide etc. for FDO® 70X IQ and FDO® 70X IQ SW series.	205 253Y
MSK FDO® CS	Cleaning set for FDO® 70X IQ SW and FDO® 70X IQ in combination with MSK FDO®	205 254Y

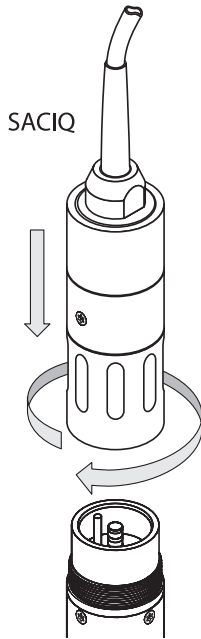
Model	Description	Order No.
SACIQ-SO SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
Electrochemical D.O. Sensor TriOxmatic® Series		
TriOxmatic® 700 IQ	Universal digital D.O. sensor for monitoring/controlling O ₂ input in wastewater treatment plants for use with IQ SENSORNET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 640Y
TriOxmatic® 700 IQ SW	Universal digital D.O. sensor for monitoring/controlling the O ₂ input, in sea water design, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1 x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 641Y
TriOxmatic® 700 IQ F	Universal digital D.O. sensor for monitoring/controlling O ₂ input in wastewater treatment plants. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), with fixed cable. Connection of a SACIQ-cable is not possible.	201 643Y
TriOxmatic® 701 IQ	Fast response time digital D.O. sensor for use in wastewater treatment plants, e.g. denitrification, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 644Y
TriOxmatic® 702 IQ	Digital D.O. sensor for trace level measurements in the ppb range, e.g. ultrapure water/boiler feed water, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 646Y
Accessories for TriOxmatic® Sensors		
ZBK 600	Accessory kit for D.O. sensors TriOxmatic® 600/690/700/700 IQ/700 IN series, complete set for regeneration of D.O. electrode. Included: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300)	202 620Y
ZBK 25i	Accessory kit for D.O. sensors TriOxmatic® 601/701(IQ)/702 (IQ) series, complete set for regeneration of D.O. electrode. Included: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300)	202 621Y
WP 600/2	Exchange membrane heads (2 pcs) for D.O. sensor TriOxmatic® 600/690/ 700 (IQ/IN) series	202 850Y
WP 25i/2	Exchange membrane heads (2 pcs) for D.O. sensor TriOxmatic® 601/701 (IQ)/702 (IQ) series	202 852Y
SF 300	Cathode cleaner (abrasive foil) for WTW oxygen sensors of TriOxmatic® and CellOx® series	203 680Y
RL-AG/Oxi	Cleaning solution for the silver anode of DO sensors of TriOxmatic® series, 1 bottle with 50 ml.	205 200Y
ELY/A	Electrolyte for D.O. sensors series TriOxmatic® 600/601/690/700 (IQ)/701 (IQ)/702 (IQ) Included: 1 bottle with 50 ml	205 212Y
SACIQ-SO SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
Cables digital IQ oxygen sensors		
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-SO	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-20,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480 045Y
SACIQ-50,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480 060Y
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
SACIQ-25,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480 066Y

*** Sensor variation with different cable length (L_{SO}): Additional costs depending on cable length.

FDO 700 IQ

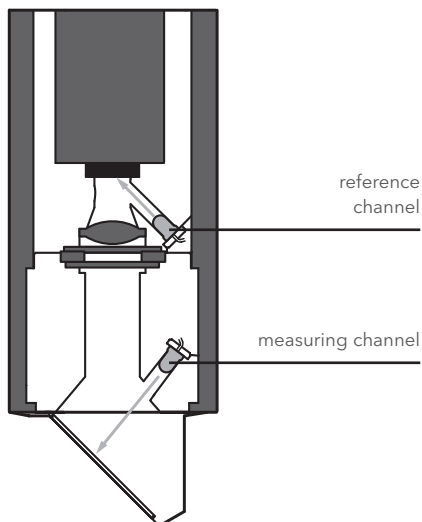


IQ sensor connection



The SACIQ cable cannot be used with the IQ sensors FDO 70X IQ F and TriOxmatic® 700 IQ F.

EPRS-referencing method



EPRS-referencing method

Measuring and reference channel (optical path for comparative measurement/zero point) are identical ⇒ Ideal optical adjustment to minimise drift of the measuring signal

Technical Data Digital DO Sensors					
Type	TriOxmatic® 700 IQ (SW*/F**)	TriOxmatic® 701 IQ	TriOxmatic® 702 IQ	FDO 700 IQ (SW*/F**)	FDO 701 IQ (SW*/F**)
Measuring method	Electrochemical			Optical	
Measuring range (25 °C)					
O₂ concentration	0.0 ... 60.0 mg/l	0.00 ... 20.00 mg/l 0.0 ... 60.0 mg/l	0 ... 2000 µg/l 0.00 ... 10.00 mg/l	0 ... 20.00 mg/l (0 ... 20.00 ppm)	
O₂ saturation	0 ... 600 %	0.0 ... 200.0 % 0 ... 600 %	0 ... 110 %	0 ... 200.0 %	
Resolution					
O₂ concentration	0.1 mg/l	0.01 mg/l 0.1 mg/l	0.001 mg/l 0.01 mg/l	0.01 mg/l (0.01 ppm)	
O₂ saturation	1 %	0.1 % 1 %	0.1 %	0.1 %	
Response time at 25 °C	t ₉₀ : 180 s	t ₉₀ : 30 s t ₉₉ : 90 s	t ₉₀ : 30 s t ₉₉ : 110 s	t ₉₀ : < 150 s t ₉₅ : < 200 s	t ₉₀ : < 60 s t ₉₅ : < 80 s
Minimum flow rate	0.05 m/s	0.23 m/s	0.3 m/s	No flow required	
SensCheck	SensLeck (700 IQ) SensReg (700 IQ/700 IQ SW)	SensLeck SensReg	- SensReg	Monitoring of membrane function	
Signal output	Digital			Digital	
Sensor memory for calibration values	Yes			Yes (factory calibrated)	
Power consumption	0.2 Watt			0.7 Watt	
Temp. measurement	Integrated NTC, 23 °F ... 140 °F (-5 °C ... +60 °C) ±0.5 °C				
Temp. compensation	32 °F ... 140 °F (0 °C ... +60 °C)			23 °F ... 122 °F (-5 °C ... +50 °C)	
Maximum pressure	10 bar (incl. sensor connection cable); 2 bar for F-sensors				
Ambient conditions	Operating temperature: 32 °F ... 140 °F (0 °C ... +60 °C) Storage temperature: 32 °F ... 149 °F (0 °C ... +65 °C)			23 °F ... 122 °F (-5 °C ... +50 °C) -13 °F ... 122 °F (-25 °C ... +50 °C)	23 °F ... 104 °F (-5 °C ... +40 °C) -13 °F ... 104 °F (-25 °C ... +40 °C)
Electrical connections	2-wire shield cable with quick fastener to sensor				
Input power	Powered by IQ SENSORNET				
Translet voltag protection	Yes				
EMI/RFI Conformance	EN 61326, Class B, FCC Class A; Intended for indispensable operation				
Certifications	CE, cETLus				
Mechanical	Membrane head assembly, locking cap: POM Sensor body: 316 Ti stainless steel Protection rating: IP 68			Sensor cap, fixation: POM, PVC, silicone, PMMA housing shaft: VA steel 1.4571 protec- tion type IP 68	
Dimensions (length x diameter)	14.17 x 1.57 in. (360 x 40 mm); SW: 14.17 x 2.34 in. (360 x 59.5 mm) incl. connection thread of SACIQ sensor connection cable			15.75 x 1.57 in. (400 x 40 mm) SW: 15.75 x 2.34 in. (400 x 59.5 mm)	
Weight (Approx.)	1.46 lb (660 g, without cable); SW: 2.58 lb (1,170 g, without cable)			1.98 lb (900 g, without cable); SW: 3.31 lb (1.5 kg, without cable)	
Sensor cap lifetime	-	-	-	24 month warranty	6 month warranty
Warranty	2 years for sensors				

* SW: Sensor in sea water design (with plastic armouring (POM))

** F: Sensor with fixed cable connection

Configuration Guide Digital DO Measurement		
	1. Measuring range 2. Response time t_{90} 3. SensCheck Function	IQ SENSORNET Systems 2020 XT/282/284
TriOxmatic® 700 IQ D.O. sensor for water/wastewater	1.: 0.0 ... 60.0 mg/l 0 ... 600% 2.: < 180 s 3.: SensLeck SensReg	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Fishfarming • Water monitoring
TriOxmatic® 700 IQ SW* D.O. sensor for water/wastewater	1.: 0,0 ... 60,0 mg/l 0 ... 600% 2.: < 180 s 3.: SensReg	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Fishfarming • Water monitoring • Seawater
TriOxmatic® 701 IQ D.O. sensor for water/wastewater	1.: 0.00 ... 20.00 mg/l 0.0 ... 60.0 mg/l 0.0 ... 200.0% 0 ... 600% 2.: < 30 s 3.: SensLeck SensReg	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Residual D.O.
TriOxmatic® 702 IQ Trace Level D.O. sensor	1.: 0 ... 2000 µg/l 0.00 ... 10.00 mg/l 0 ... 110% 2.: < 30 s 3.: SensReg	<ul style="list-style-type: none"> • ppb measuring range • Ultrapure water • Boiler feedwater
FDO 700 IQ D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 150 s 3.: SensCheck	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Fishfarming • Water monitoring
FDO 700 IQ SW* D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 150 s 3.: SensCheck	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Seawater • Fishfarming • Water monitoring
FDO 701 IQ D.O. sensor for water/wastewater	1.: 0,0 ... 20,0 mg/l 0 ... 200% 2.: < 60 s 3.: SensCheck	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Fishfarming • Water monitoring
FDO 701 IQ SW* D.O. sensor for water/wastewater	1.: 0,0 ... 20,0 mg/l 0 ... 200% 2.: < 60 s 3.: SensCheck	<ul style="list-style-type: none"> • Water/wastewater • Oxygenation • Seawater • Fishfarming • Water monitoring

* SW: Sensor in sea water design (with plastic armouring (POM))



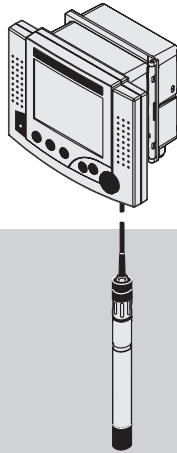
System Configurations Digital Systems

IQ SENSORNET System 2020 XT

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

Example 1 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensor	user selected

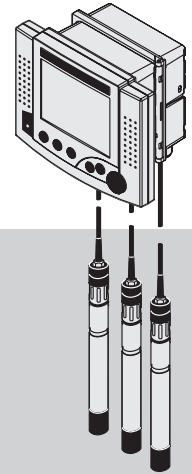


- Starter Set
MIQ/TC 2020 XT-H3
consisting of:
- MIQ/TC 2020 XT (Terminal/Controller)
 - MIQ/CR3 (3 x mA, 3 x relays)
 - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
 - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

Example 2 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected

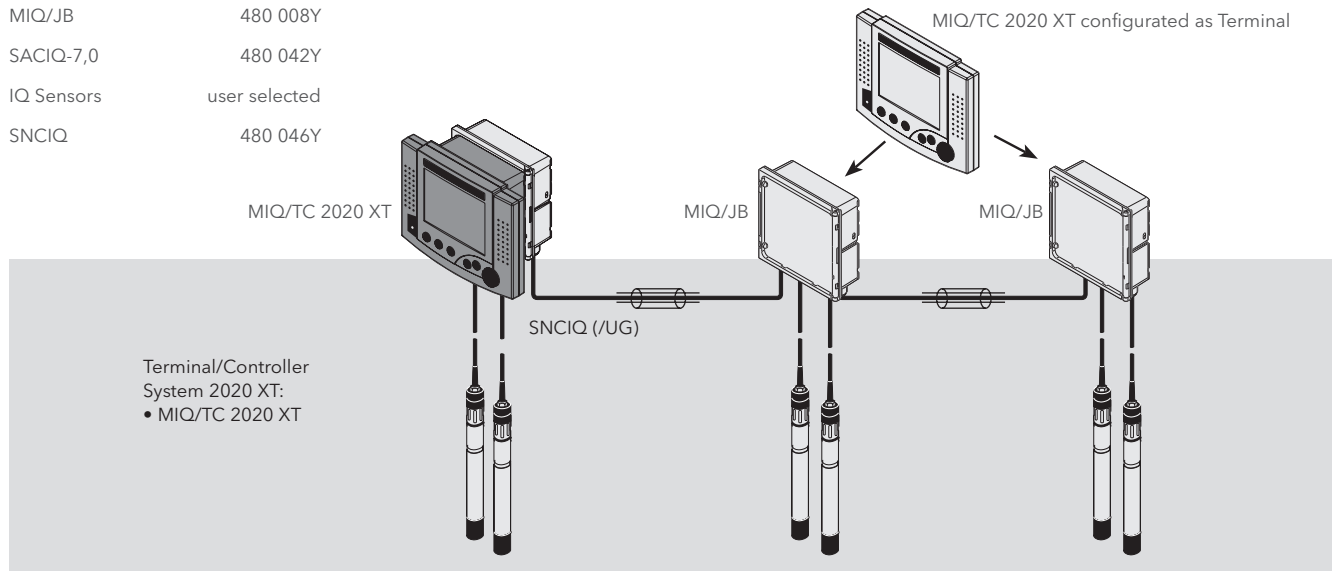


- Starter Set
MIQ/TC 2020 XT-H3
consisting of:
- MIQ/TC 2020 XT (Terminal/Controller)
 - MIQ/CR3 (3 x mA, 3 x Relays)
 - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
 - 3 IQ sensors

Multiparameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

Example 3 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT	470 000Y
MIQ/PS	480 004Y
MIQ/C6	480 015Y
MIQ/JB	480 008Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected
SNCIQ	480 046Y



Branched system 2020 XT for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 XT terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

System Configurations Digital Systems

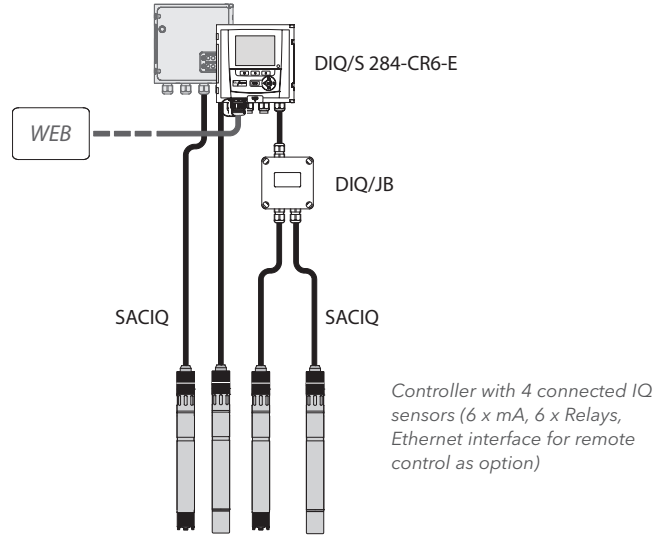
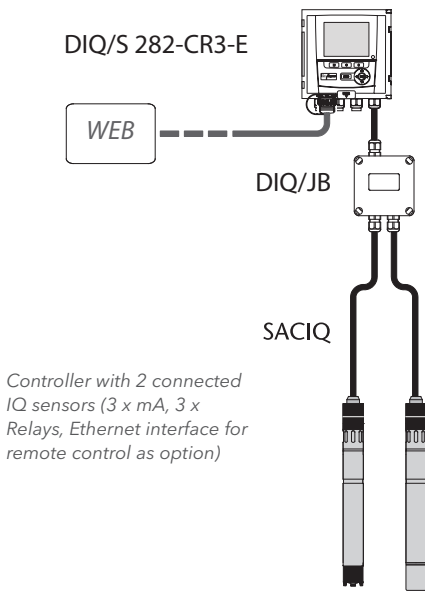
IQ SENSORNET System 282/284

Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113Y
2 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
2 x IQ sensors	user selected

Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133Y
4 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
4 x IQ sensors	user selected



Controller is also available with PR- or MOD-interface.

pH/ORP

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	Sensolyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Temperature	●	●	●	●			●	●	●									
pH			●															
ORP			●															

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

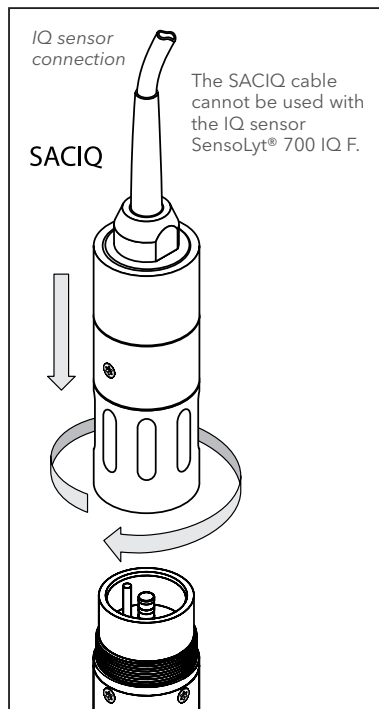


For information on pH devices for hazardous areas (EX-zone), please contact YSI.

Model	Description	Order No.
pH/ORP Combination Electrodes		
Sensolyt® SEA	pH combination electrode especially suited for measurements in heavily polluted wastewater, with armouring for use in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109 115Y
Sensolyt® ECA	pH combination electrode esp. suited for normally polluted wastewater (e.g. municipal wastewater) with armouring for use in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109 117Y
Sensolyt® SEA-HP	pH combination electrode with optimized armouring for use under high pressure/temperature conditions, for installation in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 4 ... 12 pH	109 118Y
Sensolyt® DWA	pH combination electrode especially for drinking water applications, for installation in sensors of Sensolyt® 650/690/700 (IQ) series. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109 119Y
Sensolyt® PtA	ORP combination electrode especially suited for measurements in heavily polluted wastewater, for installation in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range - 2000 ... + 2000 mV	109 125Y
pH/ORP Sensors		
Sensolyt® 700 IQ	Robust digital pH/ORP sensor for pH/ORP electrodes Sensolyt® SEA/DWA/ECA/PtA for use with the IQ SENSORNET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109 170Y
Sensolyt® 700 IQ SW	Robust digital pH/ORP sensor for Sensolyt® SEA/ DWA/ECA/PtA pH/ORP electrodes, in sea water design, for use with the IQ SENSORNET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109 171Y

Model	Description	Order No.
SensoLyt® 700 IQ/SET	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including pH electrode (SensoLyt® SEA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109 173Y
SensoLyt® 700 IQ/SET1	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including ORP electrode (SensoLyt® PtA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109 174Y
SensoLyt® 700 IQ F	Robust digital pH/ORP sensor for pH/ORP electrodes SensoLyt® SEA/SEA-HP/DWA/ECA/PtA. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, with fixed cable. Connection of a SACIQ-cable is not possible.	109 177Y
SensoLyt® 700-SK	Protecting cage (protection against strikes/ solids) for SensoLyt® pH/ORP electrodes within SensoLyt® sensors	109 194Y
Accessories pH/ORP		
TEP 4	Technical buffer solution, 1 bottle with 1 l: pH 4.01	108 700Y
TEP 7	Technical buffer solution, 1 bottle with 1 l: pH 7.00	108 702Y
TEP 10 Trace	Technical buffer solution, 1 bottle with 1 l: pH 10.01	108 703Y
TEP 10	Technical buffer solution, 1 bottle with 1 l: pH 10.00	108 704Y
RH 28	ORP buffer solution pH 7, UH = 427 mV (CH), 1 bottle with 250 ml.	109 740Y
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-SO	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-20,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480 045Y
SACIQ-50,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480 060Y
SACIQ-SO SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
SACIQ-25,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480 066Y

*** Sensor variation with different cable length („-SO“): Additional costs depending on cable length.



Technical Data Digital Sensolyt® Sensor Assemblies	
Type	Sensolyt® 700 IQ (SW*/F**)
Integrated Preamplifier	Yes
Signal output	Digital
Sensor check funktion	Yes
Sensor memory for calibration values	Yes
Power consumption	0.2 Watt
Temperature measurement	Integrated NTC, 23 ... 140 °F (-5 ... +60 °C)
Pressure range	10 bar, for F-sensor: 2 bar
Ambient conditions	Operating temperature: 32 ... 140 °F (0 ... +60 °C)
Electrical connections	2-wire shielded cable with quick fastener to sensor
Transient voltage protection	Yes
EMI/RFI Conformance	EN 61326 class B, FCC Class A Intended for indispensable operation
Certifications	CE, cETLus
Mechanical	Sensor body: 316 Ti stainless steel Protection cap: PVC Sensor holder: POM Protection rating: IP 68
Dimensions (L x D)	20 x 1.57 in. (508 x 40 mm); SW: 20.78 x 2.34 in. (515 x 59.5 mm)
Weight (without cable)	2.14 lb (970 g) SW: approx. 3.97 lb (1.800 g)
Warranty	2 years for defects of quality

Configuration Guide Digital pH/ORP Measurement			
Digital	Sensolyt® 700 IQ with integrated pre-amplifier, integrated temperature measurement 32 ... 140 °F (0 ... 60 °C), SensorCheck and calibration value storage	Compatible electrodes: SEA: 2 ... 12 pH SEA-HP: 4 ... 12 pH DWA: 0 ... 14 pH ECA: 2 ... 12 pH PtA: ±2000 mV 32 ... 140 °F (0 ... 60 °C)	IQ SENSORNET Systems 2020 XT/282/284 <ul style="list-style-type: none"> Digital signal transmission SensCheck pH/ORP measurement in highly polluted wastewater (municipal/industrial) Type SEA pH measurement in normally polluted wastewater (municipal/industrial) Type ECA pH measurement in drinking water (DWA) ORP measurement in highly polluted wastewater (municipal/industrial) Type PtA Inline installation (SEA or SEA-HP)
	Sensolyt® 700 IQ SW* with integrated pre-amplifier, integrated temperature measurement 32 ... 140 °F (0 ... 60 °C), SensorCheck and calibration value storage	Compatible electrodes: SEA: 2 ... 12 pH SEA-HP: 4 ... 12 pH DWA: 0 ... 14 pH ECA: 2 ... 12 pH PtA: ±2000 mV 32 ... 140 °F (0 ... 60 °C)	<ul style="list-style-type: none"> Digital signal transmission SensCheck pH/ORP measurement in highly polluted wastewater (municipal/industrial) Type SEA pH measurement in normally polluted wastewater (municipal/industrial) Type ECA pH measurement in drinking water (DWA) ORP measurement in highly polluted wastewater (municipal/industrial) Type PtA Inline installation (SEA or SEA-HP)
Configuration Guide Analog pH/ORP Measurement with IQ SENSORNET			
(connection via junction box KI/pH-MIQ/S to Systems 282/284 & 2020 XT)			
Analog	CHEMtrac 830 M pH/ORP retractable housing with flushing chamber for maintenance and calibration, stainless steel 1.4404/316L, operating conditions: 16 bar, 284 °F (140 °C)	Applicable electrodes: PL 80-225pH: 0 ... 14 pH, 32 ... 266 °F (0 ... 130 °C) PL 89-225pt: -2000 ... +2000 mV, 32 ... 266 °F (0 ... 130 °C)	KI/pH-MIQ/S (505 544) K 5 S cable (108 461) AS 9 HI-6,0 cable (108 507)

* SW: Sensor in sea water design (with plastic armouring (POM))

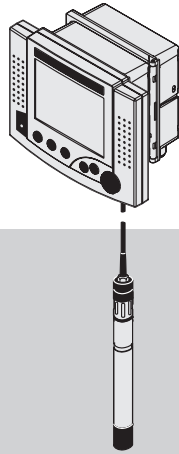
System Configurations Digital Systems

IQ SENSORNET System 2020 XT

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

Example 1 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensor	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x relays)
- MIQ/PS (power supply)

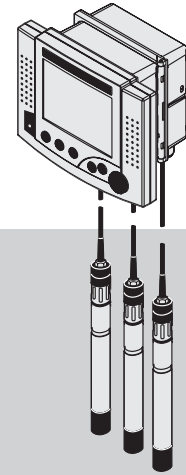
additionally:

- 1 SACIQ (sensor cable)
- 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

Example 2 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x Relays)
- MIQ/PS (power supply)

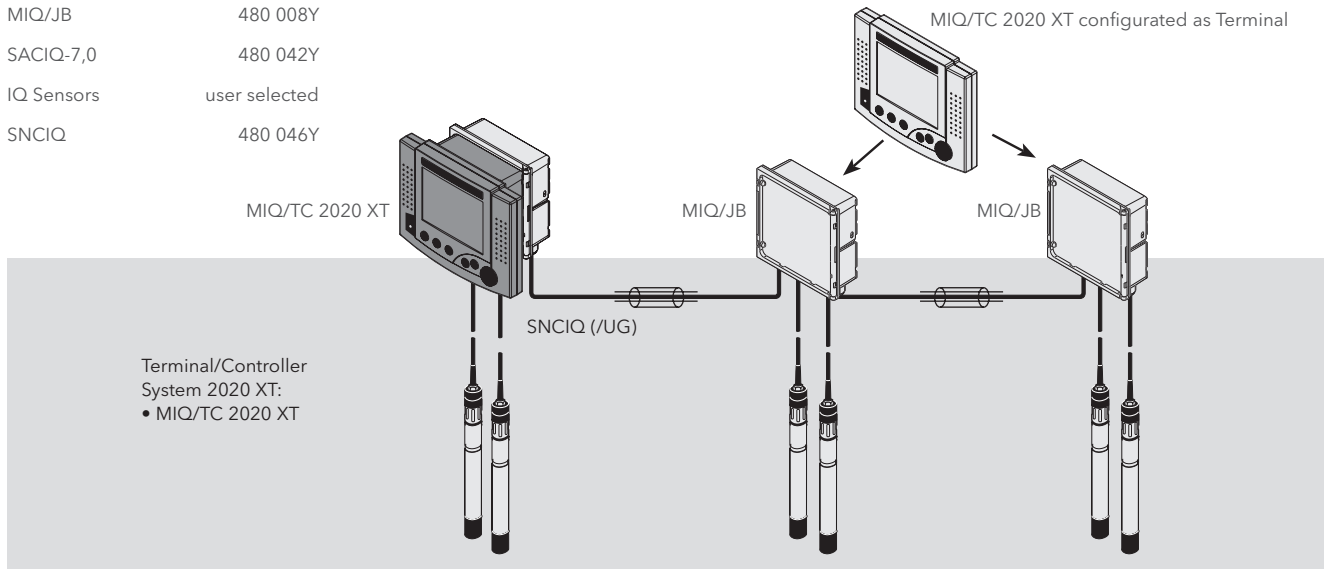
additionally:

- 3 SACIQ (sensor cable)
- 3 IQ sensors

Multiparameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

Example 3 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT	470 000Y
MIQ/PS	480 004Y
MIQ/C6	480 015Y
MIQ/JB	480 008Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected
SNCIQ	480 046Y



Branched system 2020 XT for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 XT terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

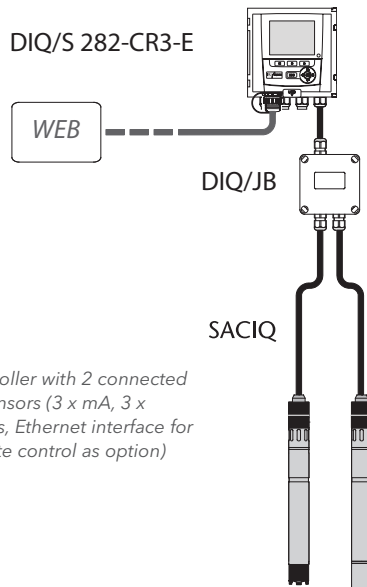
pH/ORP

System Configurations Digital Systems

IQ SENSORNET System 282/284

Example 1

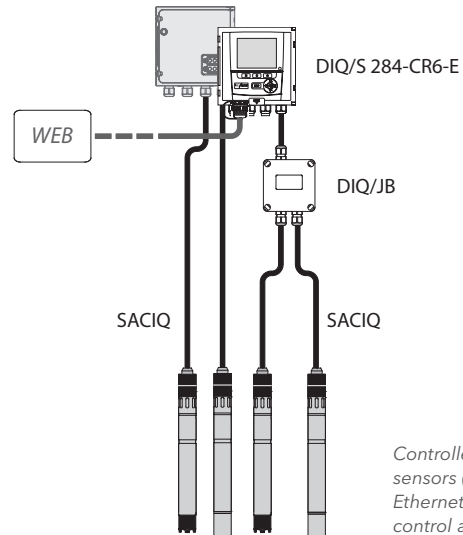
Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113Y
2 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
2 x IQ sensors	user selected



Controller with 2 connected IQ sensors (3 x mA, 3 x Relays, Ethernet interface for remote control as option)

Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133Y
4 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
4 x IQ sensors	user selected



Controller with 4 connected IQ sensors (6 x mA, 6 x Relays, Ethernet interface for remote control as option)

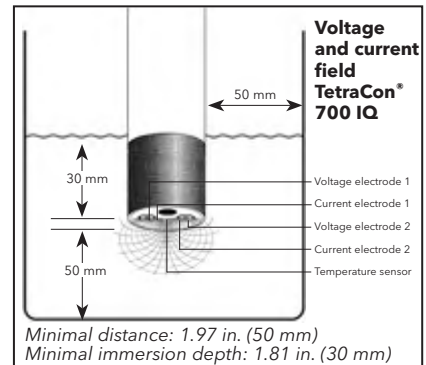
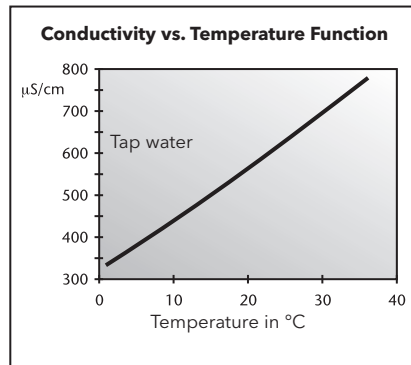
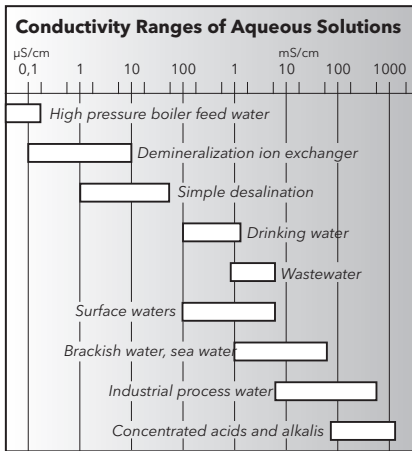
Controller is also available with PR- or MOD-interface.

Conductivity

Parameter	Sensors																		
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ	
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5	
Parameter																			
Temperature	●	●	●	●			●	●	●										
Conductivity				●															
Salinity				●															
TDS				●															

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Conductivity Measurement with TetraCon® 700 IQ



Model	Description	Order No.
Conductivity Cells		
TetraCon® 700 IQ	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the IQ SENSORNET System. With integrated temperature sensor, without cable (Please order SACIQ separately)	302 500Y
TetraCon® 700 IQ SW	Digital 4 electrode conductivity cell, in seawater design, suited for heavily polluted water, for use with the IQ SENSORNET. With integrated temperature sensor, without cable (Please order SACIQ separately)	302 501Y
TetraCon® 700 IQ F	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the. With integrated temperature sensor, with fixed cable. Connection of a SACIQ-cable is not possible.	302 507Y
Accessories Conductivity		
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-20,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480 045Y
SACIQ-50,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480 060Y
SACIQ-50 SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
SACIQ-25,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480 066Y

Technical Data Digital Conductivity Cells	
Model	TetraCon® 700 IQ (SW*/F**)
Sensor Type	4-electrode cell
Measuring Range	10 µS/cm - 500 mS/cm SAL: 0 ... 70 TDS: 0 ... 2000 mg/l
Cell Constants	K = 0.917 cm ⁻¹ , ±1.5% (in free solution) K = 0.933 cm ⁻¹ , TetraCon® 700 IQ with EBST 700-DU/N flow-thru adapter
Signal Output	Digital
Power Consumption	0.2 Watt
Temperature Sensor	Integrated NTC
Temp. Measuring	-5 ... +60 °C (23 ... 140 °F)
Maximum Pressure	10 bar; 2 bar for F-sensors
Electrical Connections	2-wire shielded cable with quick fastener to sensor
Certifications	CE, cETL, ETL
Mechanical	Sensor head: PVC Body: 316 Ti stainless steel Protection rating IP 68
Dimensions (length x diameter)	357 x 40 mm (14.06 x 1.57 in., incl. connection thread of SACIQ sensor connection cable) SW: 357 x 59.5 mm (14.06 x 2.34 in.)
Weight (without cable)	Approx. 660 g (1.46 lb) SW: approx. 1,170 g (2.58 lb)
Warranty	2 years for defects of quality

* SW: Sensor in sea water design (with plastic armouring (POM))

** F: sensor with fixed cable connection

*** Sensor variation with different cable length („_SO“); Additional costs depending on cable length.



Configuration Guide Digital Conductivity Measurement				
		1. Measuring range 2. Cell constant 3. Probe type 4. Temperature compensation	5. Temperature range 6. Pressure range 7. Protection rating	IQ SENSORNET Systems 2020 XT/282/284
Digital	TetraCon® 700 IQ	1.: 10 µS/cm ... 500 mS/cm 2.: K=0.917 cm ⁻¹ 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 10 bar 7.: IP 68 (electrode)	Water/Wastewater; Usable Measuring Range: 0.00 ... 20.00 µS/cm 0.0 ... 200.0 µS/cm 0.000 ... 2.000 mS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm
	TetraCon® 700 IQ SW*	1.: 10 µS/cm ... 500 mS/cm 2.: K=0.917 cm ⁻¹ 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 10 bar 7.: IP 68 (electrode)	Water/Wastewater; Usable Measuring Range: 0.00 ... 20.00 µS/cm 0.0 ... 200.0 µS/cm 0.000 ... 2.000 mS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm

* SW: Sensor in sea water design (with plastic armouring (POM))

** F: sensor with fixed cable connection

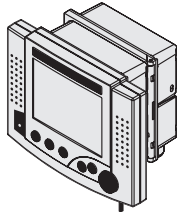
System Configurations Digital Systems

IQ SENSORNET System 2020 XT

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

Example 1 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensor	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x relays)
- MIQ/PS (power supply)

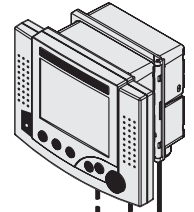
additionally:

- 1 SACIQ (sensor cable)
- 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

Example 2 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x Relays)
- MIQ/PS (power supply)

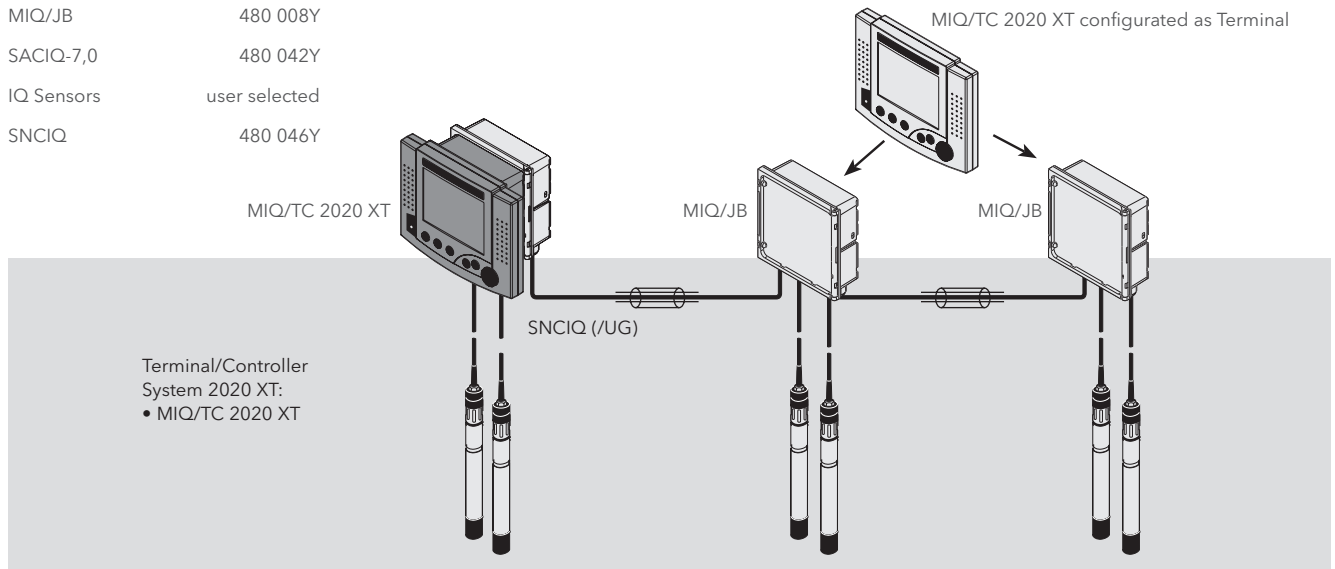
additionally:

- 3 SACIQ (sensor cable)
- 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

Example 3 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT	470 000Y
MIQ/PS	480 004Y
MIQ/C6	480 015Y
MIQ/JB	480 008Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected
SNCIQ	480 046Y



Branched system 2020 XT for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 XT terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

System Configurations Digital Systems

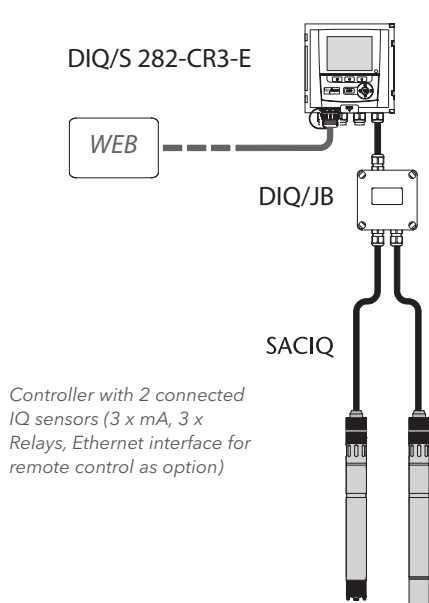
IQ SENSORNET System 282/284

Example 1

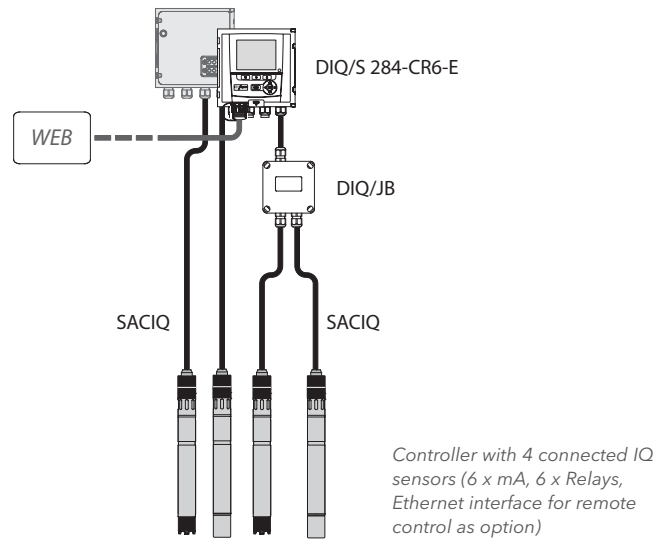
Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113Y
2 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
2 x IQ sensors	user selected

Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133Y
4 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
4 x IQ sensors	user selected



Controller with 2 connected IQ sensors (3 x mA, 3 x Relays, Ethernet interface for remote control as option)



Controller with 4 connected IQ sensors (6 x mA, 6 x Relays, Ethernet interface for remote control as option)

Controller is also available with PR- or MOD-interface.

Turbidity/Suspended Solids

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	Sensolyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Turbidity (optical)					●													
TSS (optical)						●				●		●						

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Model	Description	Order No.
Turbidity/Suspended Solids Sensors		
VisoTurb® 700 IQ F	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) Connection of a SACIQ-cable is not possible.	600 007Y
VisoTurb® 700 IQ	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable SACIQ separately.	600 010Y
VisoTurb® 700 IQ SW	Digital turbidity sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable separately.	600 011Y
ViSolid® 700 IQ	Digital suspended solids sensor for water/wastewater/sludge (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable SACIQ separately.	600 012Y
ViSolid® 700 IQ SW	Digital suspended solids sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable separately.	600 013Y
Turbidity/Suspended Solids Accessories		
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-20,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480 045Y
SACIQ-50,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480 060Y
SACIQ-50 SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
SACIQ-25,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480 066Y
Standard 1000 FNU	Standard with 1000 FNU for VisoTurb® 700 IQ.	600 014Y
Standard 4000 FNU	Standard with 4000 FNU for ViSolid® 700 IQ.	600 015Y

*** Sensor variation with different cable length (L_{SO}); Additional costs depending on cable length.

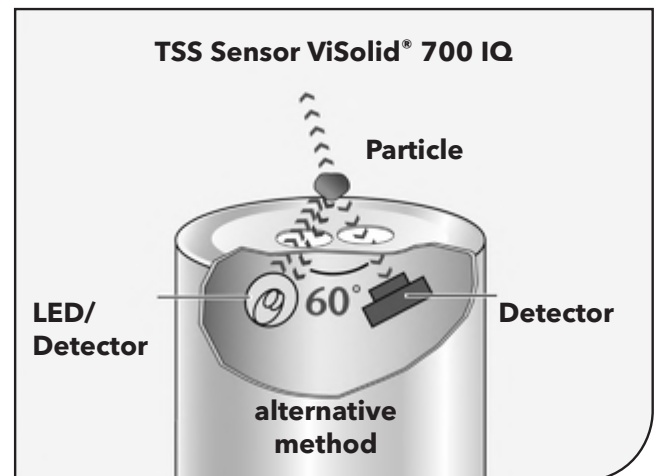
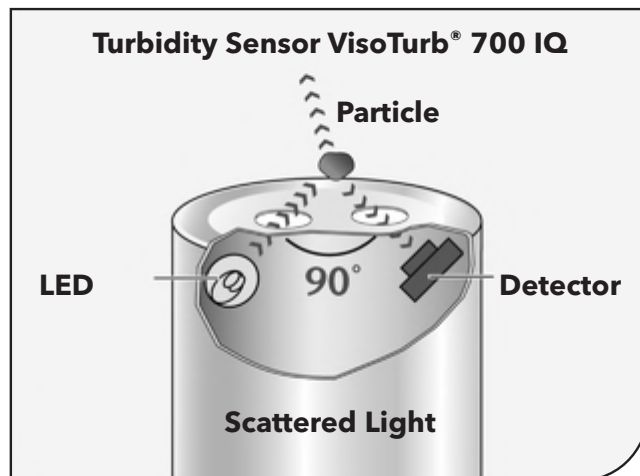
Technical Data VisoTurb® 700 IQ (SW*/F**)			
Parameter	FNU; NTU; TEF	mg/l SiO ₂ ; ppm SiO ₂	g/l TSS
Measuring Range	0.05 ... 4000 FNU	0.1 ... 4000 mg/l SiO ₂	0.0001 ... 400 g/l TSS
Typical Applications	Drinking water, surface water, wastewater plant: effluent, aeration basin ≤3 g/l TSS		
Calibration	Factory calibration with formazine	Factory calibration with SiO ₂	Calibration by user, (TSS regulations in compliance with DIN 38414)
Process variation coefficient according to DIN 38402 part 51	<1% (in the range up to 2000 FNU)		
Repeatability according to DIN ISO 5725 or DIN 1319	< 0.015% or ≥0.006 FNU		
Resolution	Automatic according to measuring range 0.001 ... 1 FNU	0.001 mg/l ... 0.01 g/l	0.001 mg/l ... 1 g/l
Cleaning System	Ultrasound cleaning system		
SensCheck	Contamination detection of optical window; failure of cleaning system		
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... 60 °C); ultrasonic cleaning system: 32 ... 104 °F (0 ... 40 °C) (overheating protection); Storage temperature: 23 ... 149 °F (-5 ... +65 °C)		
Measuring Principle	Nephelometric principle in compliance with EN 27027 and ISO 7027		
Mechanical Components	Measuring window: Sapphire; Sensor body: V4A stainless steel 1.4571; Protection rating: IP 68 SW: Measuring window: Sapphire; Sensor-body: Titanium, POM; Protection rating: IP 68		
Pressure Resistance	Maximum 10 bar (incl. sensor connection cable); 2 bar for F-sensors		
Power Consumption	1.5 Watt		
Dimensions (length x diameter)	14.37 x 1.57 in. (365 x 40 mm), incl. connection socket SACIQ cable SW: 14.37 x 2.34 in. (365 x 59.5 mm), incl. connection socket SACIQ cable		
Weight (Approx.)	2.18 lb (990 g, without cable) SW: 3.13 lb (1420 g, without cable)		
Warranty	2 years for defects of quality		

* SW: Sensor in sea water design (with plastic armouring (POM))

** F: Sensor with fixed cable connection

Technical Data ViSolid® 700 IQ (SW*)				
Parameter	g/l SiO ₂ / % SiO ₂		g/l TSS / % TSS	
Measuring Range	0.01 ... 300 g/l 0.001 ... 30%	SiO ₂ SiO ₂	0.003 ... 1000 g/l 0.0003 ... 100%	TSS TSS
Typical Applications	Matrix type 1: Outlet primary clarifier, aeration basin of wastewater plants even with >3 g/l TSS; return-sludge Matrix type 2: Primary sludge, digested sludge, thickened sludge			
Calibration	Typical sludge characteristics stored: matrix type 1, matrix type 2 Calibration by user: adjustment via correction factor, 1-point or multi-point calibration possible			
Process variation coefficient according to DIN 38402 part 51	<2% for matrix type 1, <4% for matrix type 2			
Resolution	Automatic according to measuring range 0.1 mg/l ... 1 g/l		0.1 mg/l ... 1 g/l	
Cleaning System	Ultrasound cleaning system			
SensCheck	Contamination detection of optical window; failure of cleaning system			
Ambient Conditions	Operating temperature: 32 ... 140 °F (0 ... 60 °C); Storage temperature: 23 ... 149 °F (-5 ... +65 °C)			
Mechanical Components	Measuring window: Sapphire; Sensor body: V4A stainless steel 1.4571; Protection rating: IP 68 SW: Measuring window: Sapphire; Sensor-body: Titanium, POM; Protection rating: IP 68			
Pressure Resistance	Maximum 10 bar (incl. sensor connection cable)			
Power Consumption	1.5 Watt			
Dimensions (length x diameter)	14.37 x 1.57 in. (365 x 40 mm), incl. connection socket SACIQ cable SW: 14.37 x 2.34 in. (365 x 59.5 mm), incl. connection socket SACIQ cable			
Weight (Approx.)	2.18 lb (990 g, without cable) SW: 3.13 lb (1420 g, without cable)			
Warranty	2 years for defects of quality			

* SW: Sensor in sea water design (with plastic armouring (POM))



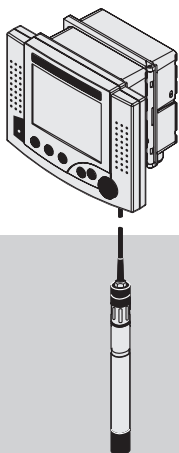
System Configurations Digital Systems

IQ SENSORNET System 2020 XT

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

Example 1 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensor	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x relays)
- MIQ/PS (power supply)

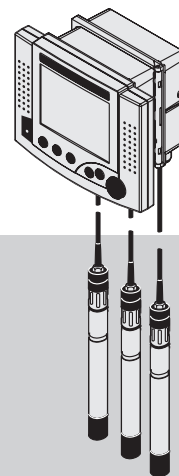
additionally:

- 1 SACIQ (sensor cable)
- 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

Example 2 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected



Starter Set
MIQ/TC 2020 XT-H3
consisting of:

- MIQ/TC 2020 XT (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x Relays)
- MIQ/PS (power supply)

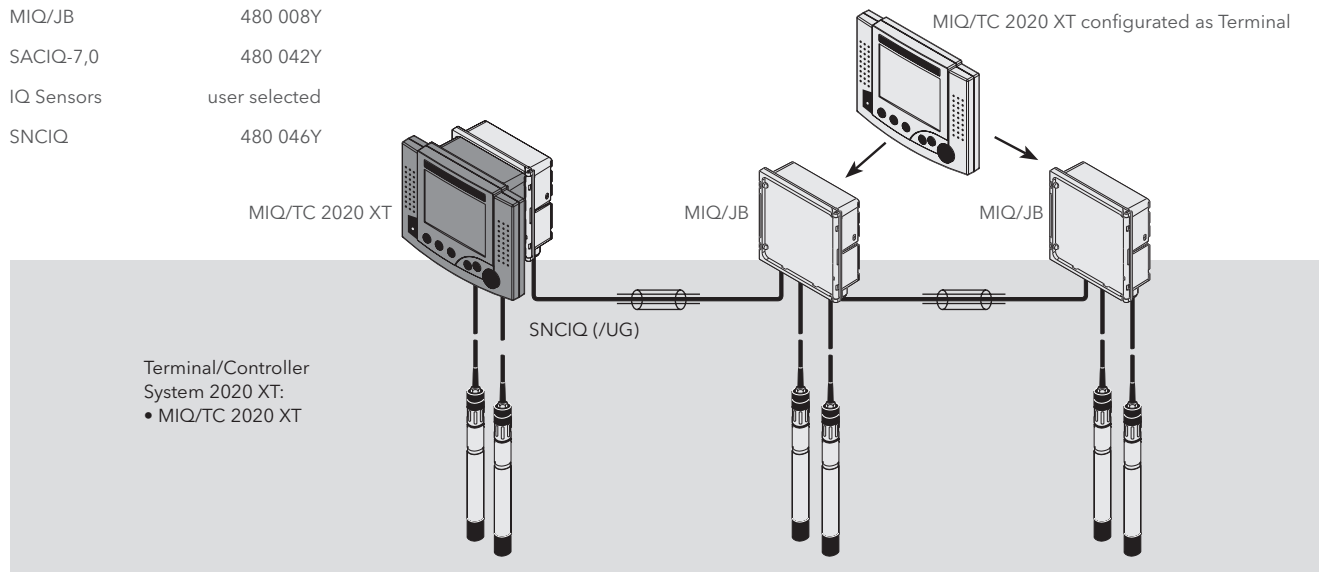
additionally:

- 3 SACIQ (sensor cable)
- 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

Example 3 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT	470 000Y
MIQ/PS	480 004Y
MIQ/C6	480 015Y
MIQ/JB	480 008Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected
SNCIQ	480 046Y



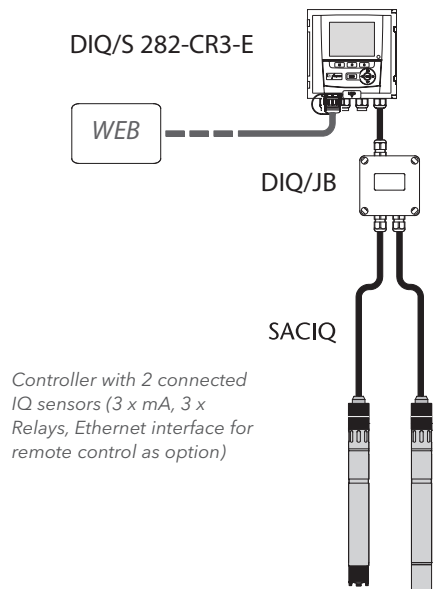
Branched system 2020 XT for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 XT terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

System Configurations Digital Systems

IQ SENSORNET System 282/284

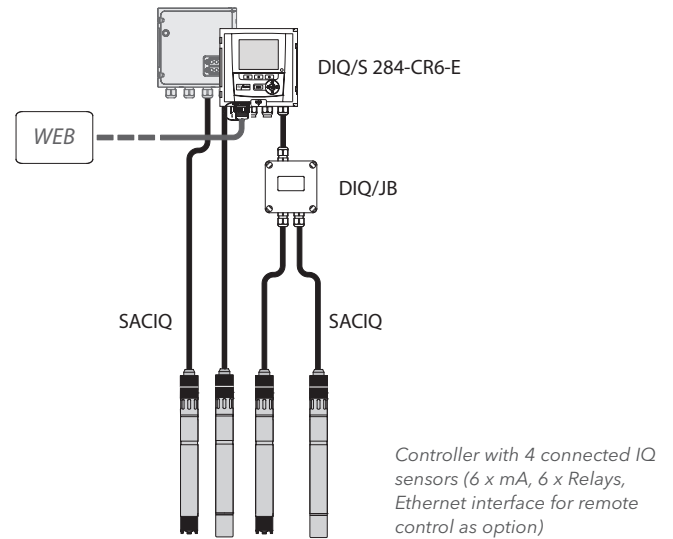
Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113Y
2 x SACIQ-7,0	480 04Y2Y
DIQ/JB	472 005Y
2 x IQ sensors	user selected



Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133Y
4 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
4 x IQ sensors	user selected



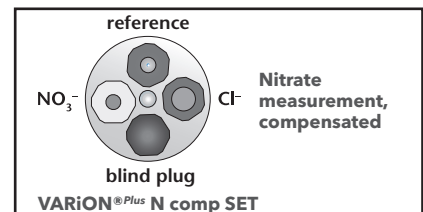
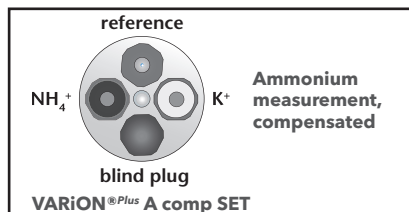
Controller is also available with PR- or MOD-interface.

Nitrogen

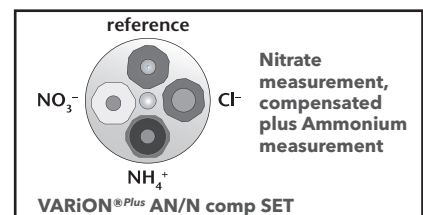
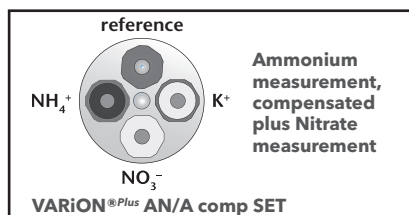
Parameter	Sensors																		
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	Ammolyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ	
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5	
Parameter																			
Temperature	●	●	●	●			●	●	●										
TSS (optical)						●				●		●							
Ammonium (ion-selective)							●		●										
Nitrate (ion-selective)								●	●										
Nitrate (optical/spectral)										●	●		●	●		●			
Nitrite (optical/spectral)										●			●			†			
Potassium (ion-selective)							●		●										
Chloride (ion-selective)								●	●										

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.
 † NO₂-N is included in the measurement result

VARiON® 700 IQ
Possible configurations:



Double sensors
 NH_4^+ & NO_3^-



Model	Description	Order No.
Combination sensor for ammonium and nitrate ISE		
VARiON®Plus sets and standard solution		
VARiON®Plus A comp SET NH4	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, ammonium electrode VARiON®Plus NH4 and compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107 060Y
VARiON®Plus N comp SET NO3	Robust digital Sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, nitrate electrode VARiON®Plus NO3 and compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107 062Y
VARiON®Plus AN/A comp SET NH4 & NO3	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107 066Y
VARiON®Plus AN/N comp SET NH4 & NO3	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107 068Y
VARiON®/ES-1	Multiple standard solution 1 (low concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 050Y
VARiON®/ES-2	Multiple standard solution 2 (high concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 052Y
VARiON®Plus separate deliveries		
VARiON®Plus 700 IQ	Robust digital sensor for the ion-selective measurement (in-situ) of ammonium and nitrate, for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ with 4 blind plugs, protective device and calibration vessel. Please order electrodes separately.	107 040Y
VARiON® Ref	Reference electrode for mounting into sensors VARiON®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107 042Y
VARiON®Plus NH4	Ammonium electrode for VARiON®Plus 700 IQ and AmmoLyt® Plus/AmmoLyt®, measuring range: 0.1 - 2.000 mg/l NH ₄ -N	107 044Y
VARiON®Plus NO3	Nitrate electrode for VARiON®Plus 700 IQ and NitraLyt®Plus/ NitraLyt®, measuring range: 0.1 - 1000 mg/l NO ₃ -N	107 045Y
VARiON®Plus K	Potassium electrode for VARiON®Plus 700 IQ and for AmmoLyt®Plus, measuring range: 1 - 1000 mg/l K ⁺	107 046Y
VARiON®Plus Cl	Chloride electrode for VARiON®Plus 700 IQ and for NitraLyt® Plus, measuring range: 1-1000 mg/l Cl ⁻	107 047Y
Ammonium ISE		
AmmoLyt®Plus sets and standard solutions		
AmmoLyt® Plus SET	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref and VARiON®Plus NH4 electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: electrode VARiON®Plus K und SACIQ connection cable. (Please order separately)	107 071Y
AmmoLyt® Plus SET/Comp	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref, VARiON®Plus NH4 and VARiON®Plus K electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107 072Y
VARiON®/ES-1	Multiple standard solution 1 (low concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 050Y
VARiON®/ES-2	Multiple standard solution 2 (high concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 052Y
AmmoLyt®Plus 700 IQ separate deliveries		
VARiON® Ref	Reference electrode for mounting into sensors VARiON®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107 042Y
VARiON®Plus NH4	Ammonium electrode for VARiON®Plus 700 IQ and AmmoLyt® Plus/AmmoLyt®, measuring range: 0.1 - 2.000 mg/l NH ₄ -N	107 044Y
VARiON®Plus K	Potassium electrode for VARiON®Plus 700 IQ and for AmmoLyt®Plus, measuring range: 1 - 1000 mg/l K ⁺	107 046Y
AmmoLyt® Plus 700 IQ	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NH4, VARiON®Plus K and SACIQ connection cable (Please order separately).	107 070Y

Model	Description	Order No.
Nitrate ISE		
NitraLyt®Plus sets und standard solutions		
NitraLyt®Plus SET	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARION® Ref and VARION®Plus NO3 electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrode VARION®Plus Cl and SACIQ connection cable (Please order separately).	107 081Y
NitraLyt®Plus SET/Comp	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARION® Ref, VARION®Plus NO3 and VARION®Plus Cl electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107 082Y
VARION®/ES-1	Multiple standard solution 1 (low concentration) for VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 050Y
VARION®/ES-2	Multiple standard solution 2 (high concentration) for VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107 052Y
NitraLyt®Plus 700 IQ separate deliveries		
VARION® Ref	Reference electrode for mounting into sensors VARION®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107 042Y
VARION®Plus NO3	Nitrate electrode for VARION®Plus 700 IQ and NitraLyt®Plus/ NitraLyt®, measuring range: 0.1 - 1000 mg/l NO ₃ -N	107 045Y
VARION®Plus Cl	Chloride electrode for VARION®Plus 700 IQ and for NitraLyt® Plus, measuring range: 1-1000 mg/l Cl-	107 047Y
NitraLyt®Plus 700 IQ	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARION® Ref, VARION®Plus NO3, VARION®Plus Cl and SACIQ connection cable (Please order separately).	107 080Y
Accessories ISE		
VARION® 700 IQ-SK	Protection device for ISE electrodes, mountable on VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ	107 056Y
VARION®/Epack	Spare part set for VARION®Plus 700 IQ. Consisting of 1 special box spanner for mounting and dismantling of electrodes, 1 blind plug, 3 spare O-ring seals for electrodes and 1 vessel for wet storage of electrodes.	107 057Y
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472 007Y
Cleaning Air Box - 115 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480 017Y
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y
Cleaning Air Box - 230 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480 019Y
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041Y
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
CH	Cleaning head for on-line sensors with 40 mm diameter. Supplied with 15 m (49 ft) compressed air tube.	900 107Y
NOx Sensor		
UV 701 IQ NOx	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately)	481 034Y
UV 705 IQ NOx	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 035Y
Nitrate/Nitrite Spectral Sensors		
NitraVis 701 IQ	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 044Y

*** Sensor variation with different cable length („-SO“); Additional costs depending on cable length.

Model	Description	Order No.
NitraVis 701 IQ TS	Spectral nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for in-situ measurement in inlet/ BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 045Y
NitraVis 705 IQ	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 046Y
NitraVis 705 IQ TS	Optical nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 047Y
NiCaVis 705 IQ	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACTotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 052Y
NiCaVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACTotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 054Y
NiCaVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACTotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 055Y
NitraVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 056Y
NitraVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 057Y
Accessories Spectral Sensors (Nitrogen)		
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472 007Y
Cleaning Air Box - 115 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480 017Y
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y
Cleaning Air Box - 230 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480 019Y
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
VIS FT-1	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480 080Y
VIS FT-1/RS	Spare part set for flow-thru measuring cell VIS FT-1	480 081Y
VIS Set Brushes/1mm	Brushes for cleaning of UVVIS sensors, Set with 2 brushes for 1 mm path length	481 031Y
VIS Set Brushes/5mm	Brushes for cleaning of UVVIS sensors, Set with 2 brushes for 5 mm path length	481 032Y
VIS/CT	Universal cleaning tool for spectral sensors.	481 071Y
VIS/CV	Multifunctional slide for spectral sensors.	481 074Y
SET/AP	Air pressure cleaning set for spectral sensors: Supplied with 15 m (49 ft) tubing, fittings, without further modules and components.	481 075Y
ST-1	Standard with low concentration for 5 mm spectral sensors.	481 077Y
ST-2	Standard with high concentration for 1 mm spectral sensors.	481 078Y
VIS/CS	Universal cleaning tool set for cleaning of measuring windows of spectral sensors with cleaning solutions.	481 079Y

*** Sensor variation with different cable length (L₀-SO[®]); Additional costs depending on cable length.

Model	Description	Order No.
TresCon® Ammonia		
OA 110	Separate TresCon® analyzer module for on-line measurement of ammonium, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 4 month operation, ammonium electrode (NH500/TC), annual need tubing (Epack/P211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) for preparation of reagent	820 008Y
TCU/A111	TresCon® Uno single parameter system with module OA 110 for on-line measurement of ammonium, incl. manual, 105...250 V AC; 47...63 Hz with bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 4-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 101Y
Accessories TresCon® Ammonia		
ZBK/NH500/TC	Accessory kit for on-line ammoni sensor NH 500/TC for TresCon® and TresCon® Uno included: 3 membrane caps and 50 ml electrolyte	180 102Y
BEH/ T 1,5	1.5 l wide-necked bottle (with screw cap and labels).	821 017Y
BEH/ T 10	10 l container (with screw cap and labels).	821 019Y
MWSet/A111	Container set for ammonium seawater chemicals. Supplied with 10 l container, 2 x 1,5 l bottles incl. Screw caps and seawater labels.	821 025Y
BSet/A111	Container set for ammonium module OA 110, TresCon® A111 and TresCon® Uno TCU/A111.	821 055Y
R/ A111	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821 075Y
S/ AI - A111	Standard solution A-I (1 mg/l NH ₄ -N), 1.5 l.	821 100Y
S/ AII - A111	Standard solution A-II (5 mg/l NH ₄ -N), 1.5 l.	821 101Y
S/ BI - A111	Standard solution B-I (10 mg/l NH ₄ -N), 1.5 l.	821 102Y
S/ BII - A111	Standard solution B-II (50 mg/l NH ₄ -N), 1.5 l.	821 103Y
RSet/A111-1	Reagent set for ammonium analyzer module OA 110 resp. TresCon® A111 and TresCon® Uno TCU/A111, 120 days operation: standards (1 mg/l, 10 mg/l)/ reagents/cleaning agents.	821 138Y
RSet/ A111-2	Reagent set for ammonium analyzer module OA 110 resp. TresCon® A111 and TresCon® Uno TCU/A111, 120 days operation: standards (5 mg/l, 50 mg/l)/ reagents/cleaning agents.	821 140Y
C/TCM1	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821 156Y
C/ A111	1.5 l cleaning solution for ammonium analyzer module OA 110, TresCon® A111 and TresCon® Uno /A111; 10% citric acid.	821 160Y
Wpack/ A111	Set of maintenance kit (fittings and spare tubes) for TresCon® ammonium analyzer module OA 110, TresCon® A111 and TresCon® Uno/A111.	821 197Y
NH500/TC	Ammonium electrode, incl. 3 exchange membrane heads and 50 ml electrolyte solution for module OA 110.	821 210Y
MC/NH500/TC	Exchange membrane heads for ammonium electrode, included: 3 exchange membrane caps.	821 212Y
ELY/NH	Electrolyte solution for Ammonium electrode, 50 ml.	821 220Y
BA/A111/d	Instruction manual TresCon® A111/German.	BA4 3111dY
BA/A111/e	Instruction manual TresCon® A111/English.	BA4 3111eY
TresCon® Nitrate/SAC		
ON 210	Separate TresCon® analyzer module for on-line measurement of nitrate, for extension of a TresCon® system, incl. manual. Supplied with reagents for 3 month operation, (1.5 l standard A-I (S/AI-N211) (zero standard H ₂ O dest.) and 1.5 l cleaning solution (C/N211), overflow vessel (TC/ÜB 1) and annual need tubing (Wpack/N211).	820 007Y
OS 210	Separate TresCon® analyzer module for on-line measurement of nitrate/SAC, for extension of a TresCon® system, incl. manual. Supplied with reagents for 3 month operation, (1.5 l standard A-I (S/AI-N211) (zero standard H ₂ O dest.) and 1.5 l cleaning solution (C/N211), overflow vessel (TC/ÜB 1) and annual need tubing (Epack/N211).	820 010Y
Accessories TresCon® Nitrate/SAC		
BEH/ T 1,5	1.5 l wide-necked bottle (with screw cap and labels).	821 017Y
BEH/ T 10	10 l container (with screw cap and labels).	821 019Y
BSet/ N211	Container set for nitrate and Nitrate/SAC TresCon® modules ON / OS 210 (resp. TresCon® N/S 211 and TresCon® Uno N/S 211). Supplied with 1 x 1.5 l bottle and 1 x 10 l container, incl. screw caps and labels.	821 056Y
R/ A111	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821 075Y
S/ AI - N 211	Standard solution A-I (zero standard NO ₃ -N), 10 l.	821 112Y
SSet/ N211	Set of standard solution (NO ₃ -N) 4x 1.5 l for nitrate analyzer modules TresCon® ON 210 and OS 210, TresCon® N211/S211, TCU/N211 and S211.	821 113Y

Model	Description	Order No.
RSet/ N211	Reagent set for nitrate (SAC), for 120 days operation: standard/cleaning agent for TresCon® modules ON/OS 210, TresCon® N/S211, TCU/N211/S211.	821 143Y
C/TCM1	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821 156Y
C/ N211	1.5 l cleaning solution for analyzer module nitrate TresCon® ON 210 and OS 210, TresCon® N211 /S 211 and TCU/ N211 /S 211, 0.4 % salt acid.	821 163Y
C/N211/FE	1.5 l cleaning solution nitrite for ferrous waste water for analyzer module TresCon® ON 210 and OS 210, TresCon® N211/S211 and TCU/N211 u. S211.	821 165Y
Wpack/ N211	Set of maintenance kit (fittings/spare tubes) for TresCon® nitrate and nitrate/SAC analyzer module ON/OS 210, TresCon® N/S 211/TCU Uno/S 211.	821 199Y
BA/N211/d	Instruction manual TresCon® N211/German.	BA4 3110dY
BA/N211/e	Instruction manual TresCon® N211/English.	BA4 3110eY
BA/S211/d	Instruction manual TresCon® S211/German.	BA4 3120dY
BA/S211/e	Instruction manual TresCon® S211/English.	BA4 3120eY
TresCon® Nitrite		
ON 510	Separate TresCon® analyzer module for on-line measurement of nitrite, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 3 month operation (R/N511, S/B-N511, R/A111), annual need tubing (Epack/ N211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) and 2x 1.5 l container (BEH/T1,5).	820 009Y
TCU/N511	TresCon® Uno single parameter system with module ON 510 for on-line measurement of nitrite, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 103Y
Accessories TresCon® Nitrite		
BEH/ T 1,5	1.5 l wide-necked bottle (with screw cap and labels).	821 017Y
BEH/ T 10	10 l container (with screw cap and labels).	821 019Y
BSet/ N511	Container set for nitrite TresCon® module ON 510, TresCon® N511 and TresCon® Uno N511. Supplied with 2 x 1 l square bottle, incl. screw caps and labels.	821 057Y
R/ A111	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821 075Y
R/ N511	1 l reagent solution for nitrite analyzer module TresCon® ON 510 (resp. TresCon® N511 and TresCon® Uno TCU/N511), 13% phosphoric acid.	821 085Y
S/ B - N511	1.5 l standard solution B (0.4 mg/l NO ₂ -N) for TresCon® module ON 510 (resp. TresCon® N 511 and TresCon® Uno TCU/N511).	821 117Y
C/TCM1	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821 156Y
EL/ TC	Spare lamp for photometer block.	821 175Y
Wpack/ N511	Set of maintenance kit (fittings and spare tubes) for TresCon® nitrite analyzer module, TresCon® N511 and TCU/N511.	821 203Y
BA/N511/d	Instruction manual TresCon® N511/German.	BA4 3112dY
BA/N511/e	Instruction manual TresCon® N511/English.	BA4 3112eY

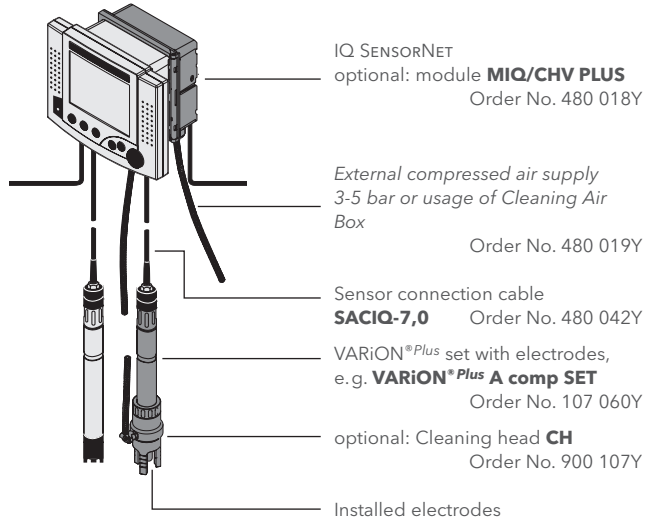
Measuring Systems for Nitrogen		Ammonium			Ammonium and Nitrate		Nitrate		*Measurement in aeration basin	
		recommended by YSI		☐ suitable	○ conditionally applicable					
System	IQ SENSORNET Ammolyt® Plus 700 IQ	TresCon® Module OA 110	IQ SENSORNET VARIO® Plus 700 IQ	IQ SENSORNET Nitralyt® Plus 700 IQ	IQ SENSORNET TresCon® Module ON 210/OS 210	IQ SENSORNET UV 70X IQ NOx	IQ SENSORNET NitraVis 70X IQ (NI)/ NiCaVis 70X IQ (NI)			
Sensor/Module	IQ SENSORNET Ammolyt® Plus 700 IQ	TresCon® Module OA 110	IQ SENSORNET VARIO® Plus 700 IQ	IQ SENSORNET Nitralyt® Plus 700 IQ	IQ SENSORNET TresCon® Module ON 210/OS 210	IQ SENSORNET UV 70X IQ NOx	IQ SENSORNET NitraVis 70X IQ (NI)/ NiCaVis 70X IQ (NI)			
Measured Variable	NH ₄	NH ₄	NH ₄ and NO ₃	NO ₃	NO _x	NO _x	NO ₂ and NO ₃			
Inlet (determination of load)	●	○	●	○	○	●	●			
Aeration (regulation and control)	●	●	●	●	●	●	●			
Effluent (monitoring)	○	●	○	○	●	●	●			
Autom. Cleaning	compressed air	cleaning solution	compressed air	compressed air	cleaning solution	ultrasonic (compressed air)	ultrasonic (compressed air)			
Cleaning Cycles	variable	automatic 6/12/24 h	variable	variable	automatic 6/12/24 h	variable	variable			
Measuring	in-situ	after sample preparation*	in-situ	in-situ	after sample preparation*	in-situ	in-situ			
Sample Preparation	none	PurCon®/PurCon® Insitu*	none	none	PurCon®/PurCon® Insitu*	none	none			
Measuring Interval	continuous	adjustable	continuous	continuous	adjustable	continuous	continuous			
Response Time	quick	medium	quick	quick	medium	quick	quick			
Measuring Method	ISE (ion-selective)	gas-sensitive	ISE (ion-selective)	ISE (ion-selective)	photometric	single wavelengths absorption measurement	UV-VIS and UV spectrometric			
Accuracy	good	high	good	good	high	good	high			
Cross Sensitivity	yes/potassium, compensable	none	yes, automatic compensation	yes/chloride, compensable	low	low	autom. compensated (spectrum)			
Calibration	factory calibration	automatic 6/12/24 h	factory calibration	factory calibration	automatic 6/12/24 h	not necessary	not necessary			
Investment Costs	low	medium	low	low	medium	low	medium			
Additional Costs	-	sample preparation/pump may be required	-	-	sample preparation/pump may be required	-	-			
Operational Costs	low	medium	low	low	low	none	none			
Consumables	electrodes	calibration standard/reagent cleaning solution/E pack	electrodes	electrodes	calibration standard cleaning solution/E pack	none	none			

Measuring Point Configurations

ISE (ion selective electrodes) measuring techniques

VARiON®Plus

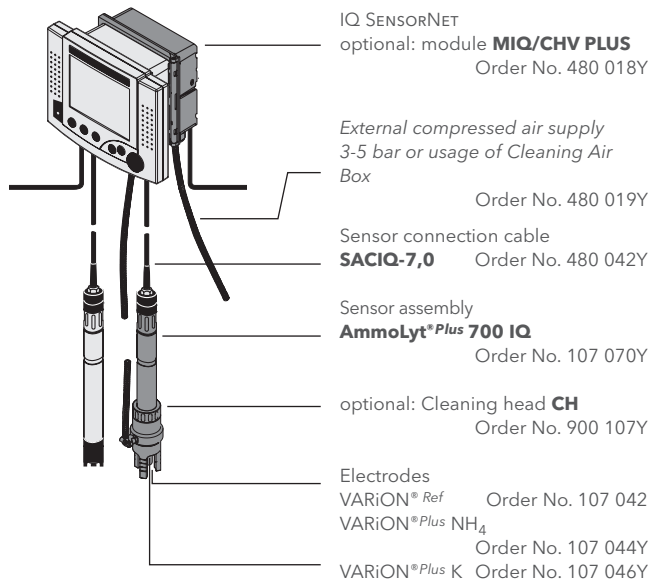
VARiON®Plus System:



required components per measuring place: dark shaded

AmmoLyt®Plus

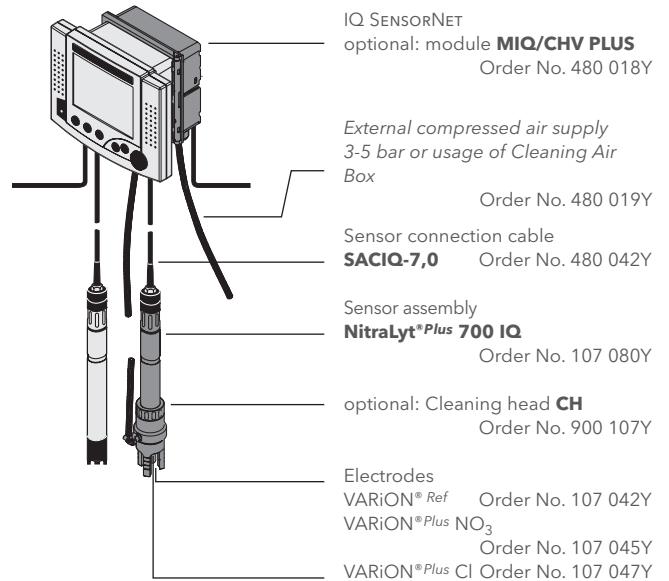
AmmoLyt®Plus System:



required components per measuring place: dark shaded

NitraLyt®Plus

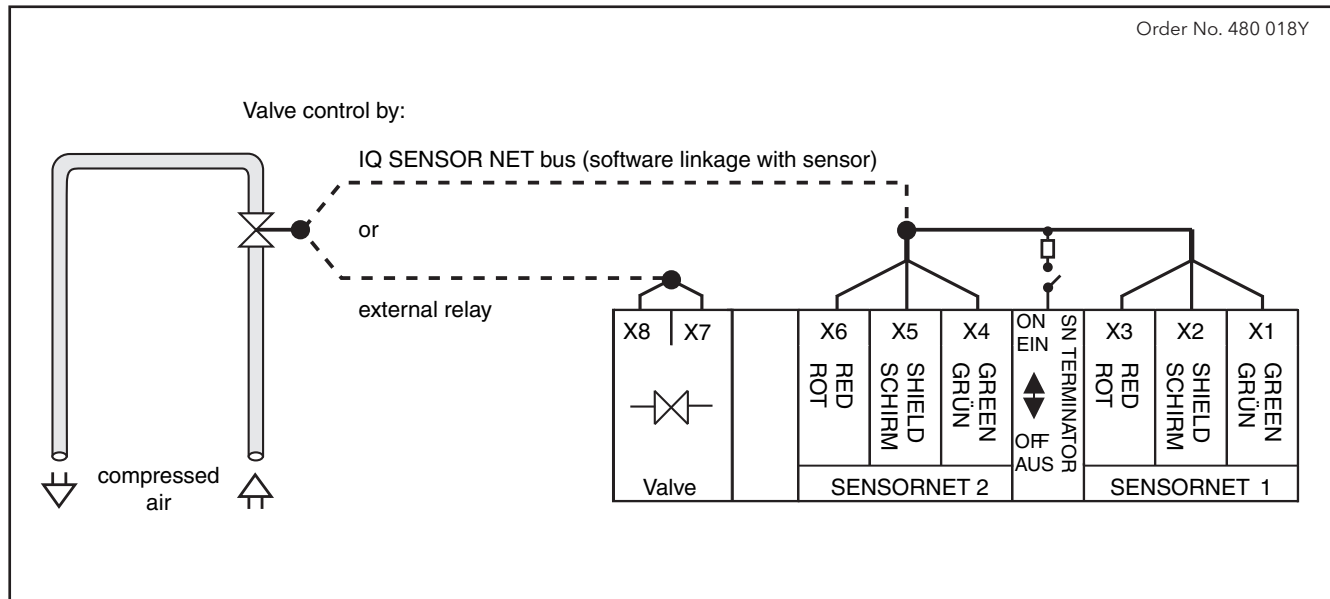
NitraLyt®Plus System:



required components per measuring place: dark shaded

Electrical connections MIQ/CHV PLUS

Order No. 480 018Y



Nitrogen

Technical Data VARiON® Plus																															
Maximum Configuration	Common reference electrode, two measuring electrodes, one compensation electrode																														
	<table border="1"> <thead> <tr> <th>Ammonium Measurement</th> <th>Nitrate Measurement</th> </tr> </thead> <tbody> <tr> <td> Integrable Electrodes: Reference Electrode: VARiON® Ref Measuring Electrode: VARiON® Plus NH₄ Compensation Electrode: VARiON® Plus K </td> <td> VARiON® Ref VARiON® Plus NO₃ VARiON® Plus Cl </td> </tr> <tr> <td> Measuring Ranges / Resolution NH₄-N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH₄⁺: 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l K⁺: 0.1 ... 1,000 mg/l / 0.1 mg/l </td> <td> NO₃-N: 1 ... 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NO₃⁻: 5 ... 4,500 mg/l / 1 mg/l; 0.5 ... 450.0 mg/l / 0.1 mg/l Cl⁻: 0.1 ... 1,000 mg/l / 0.1 mg/l </td> </tr> <tr> <td>Temperature Measurement and Compensation</td> <td>Integrated NTC thermistor, Range 32 °F ... 104 °F (0 °C ... +40 °C), Accuracy ±0.5 K, Resolution 0.1 K, t₉₅ < 20 s</td> </tr> <tr> <td>Calibration Procedures</td> <td>Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution</td> </tr> <tr> <td>Ambient Conditions</td> <td>Operating temperature: 32 °F ... 104 °F (0 °C ... +40 °C), storing temperature: 32 °F ... 104 °F (0 °C ... +40 °C)</td> </tr> <tr> <td>pH Range</td> <td>pH 4 ... pH 8.5 pH 4 ... pH 11</td> </tr> <tr> <td>Measuring Accuracy in laboratory standard solutions</td> <td>± 5% of measured value ± 0.2 mg/l in standard solutions</td> </tr> <tr> <td>Working Life (typically)</td> <td>18 months (in typical application - municipal sewage plants)</td> </tr> <tr> <td>Mechanical</td> <td>Sensor body: V4A stainless steel 1.4571 Protective cup: POM Temperature sensor: V4A stainless steel 1.4571 Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM</td> </tr> <tr> <td>Max. Pressure</td> <td>Maximum 0.2 bar (incl. SACIQ sensor connection cable, with installed electrodes)</td> </tr> <tr> <td>Power Consumption</td> <td>0.2 Watt</td> </tr> <tr> <td>Dimensions</td> <td>14.45 x 1.57 in. (367 x 40 mm, length x diameter), incl. SACIQ sensor connection cable</td> </tr> <tr> <td>Weight</td> <td>Approx. 1.76 lb (800 g, without electrodes, without SACIQ sensor connection cable)</td> </tr> <tr> <td>Warranty</td> <td>VARiON® Plus 700 IQ: 2 years / Electrodes: 1 year for defects of quality</td> </tr> </tbody> </table>	Ammonium Measurement	Nitrate Measurement	Integrable Electrodes: Reference Electrode: VARiON® Ref Measuring Electrode: VARiON® Plus NH ₄ Compensation Electrode: VARiON® Plus K	VARiON® Ref VARiON® Plus NO ₃ VARiON® Plus Cl	Measuring Ranges / Resolution NH ₄ -N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH ₄ ⁺ : 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l K ⁺ : 0.1 ... 1,000 mg/l / 0.1 mg/l	NO ₃ -N: 1 ... 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NO ₃ ⁻ : 5 ... 4,500 mg/l / 1 mg/l; 0.5 ... 450.0 mg/l / 0.1 mg/l Cl ⁻ : 0.1 ... 1,000 mg/l / 0.1 mg/l	Temperature Measurement and Compensation	Integrated NTC thermistor, Range 32 °F ... 104 °F (0 °C ... +40 °C), Accuracy ±0.5 K, Resolution 0.1 K, t ₉₅ < 20 s	Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution	Ambient Conditions	Operating temperature: 32 °F ... 104 °F (0 °C ... +40 °C), storing temperature: 32 °F ... 104 °F (0 °C ... +40 °C)	pH Range	pH 4 ... pH 8.5 pH 4 ... pH 11	Measuring Accuracy in laboratory standard solutions	± 5% of measured value ± 0.2 mg/l in standard solutions	Working Life (typically)	18 months (in typical application - municipal sewage plants)	Mechanical	Sensor body: V4A stainless steel 1.4571 Protective cup: POM Temperature sensor: V4A stainless steel 1.4571 Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM	Max. Pressure	Maximum 0.2 bar (incl. SACIQ sensor connection cable, with installed electrodes)	Power Consumption	0.2 Watt	Dimensions	14.45 x 1.57 in. (367 x 40 mm, length x diameter), incl. SACIQ sensor connection cable	Weight	Approx. 1.76 lb (800 g, without electrodes, without SACIQ sensor connection cable)	Warranty	VARiON® Plus 700 IQ: 2 years / Electrodes: 1 year for defects of quality
Ammonium Measurement	Nitrate Measurement																														
Integrable Electrodes: Reference Electrode: VARiON® Ref Measuring Electrode: VARiON® Plus NH ₄ Compensation Electrode: VARiON® Plus K	VARiON® Ref VARiON® Plus NO ₃ VARiON® Plus Cl																														
Measuring Ranges / Resolution NH ₄ -N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH ₄ ⁺ : 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l K ⁺ : 0.1 ... 1,000 mg/l / 0.1 mg/l	NO ₃ -N: 1 ... 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NO ₃ ⁻ : 5 ... 4,500 mg/l / 1 mg/l; 0.5 ... 450.0 mg/l / 0.1 mg/l Cl ⁻ : 0.1 ... 1,000 mg/l / 0.1 mg/l																														
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pH Range	pH 4 ... pH 8.5 pH 4 ... pH 11																														
Measuring Accuracy in laboratory standard solutions	± 5% of measured value ± 0.2 mg/l in standard solutions																														
Working Life (typically)	18 months (in typical application - municipal sewage plants)																														
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Warranty	VARiON® Plus 700 IQ: 2 years / Electrodes: 1 year for defects of quality																														

Technical Data Ammolyt®Plus	
Appropriate Electrode	Reference electrode VARiON® Ref, Measuring electrode VARiON®Plus NO ₃ , Compensation electrode VARiON®Plus Cl
Measuring Ranges/Resolution	NH ₄ -N: 1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l
	NH ₄ +: 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l
Compensation Range:	K+: 0.1 ... 1,000 mg/l / 0.1 mg/l
Temp. Measurement and Compensation	Integrated NTC thermistor Range: 32 ... 104 °F (0 ... +40 °C), Accuracy ±0.5 K, resolution 0.1 K, t ₉₅ < 20 s
Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution
Ambient Conditions	Integrated NTC thermistor Range: 32 ... 104 °F (0 ... +40 °C), Accuracy ±0.5 K, resolution 0.1 K
pH Range	pH 4 ... pH 8.5
Measuring Accuracy in laboratory standard solutions	± 5% of measured value ± 0.2 mg/l in standard solutions
Working Life (typically)	18 months (in typical application - municipal sewage plants)
Mechanical	Sensor body: V4A Stainless Steel 1.4571 Protective cap: POM, Temp. sensor: V4A Stainless Steel 1.4571 Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM
Max. Pressure	Maximum 0.2 bar (incl. SACIQ sensor connection cable; with installed electrodes)
Power Consumption	0.2 Watt
Dimensions	15.43 x 1.57 in. (392 x 40 mm, length x diameter), incl. sensor connection cable SACIQ
Weight	Approx. 1.48 lb (670 g, without electrode, without sensor connection cable)
Warranty	Ammolyt®Plus 700 IQ: 2 years / Electrodes: 1 year for defects of quality

Technical Data OA 110		
	Standard 1	Standard 2
Measuring Ranges	NH ₄ -N: 0.1 ... 1000 mg/l; 0.01 ... 71.00 mmol/l	NH ₄ -N: 0.05 ... 10 mg/l; 0.005 ... 0.71 mmol/l*
	NH ₄ +: 0.1 ... 1280 mg/l; 0.01 ... 71.00 mmol/l	NH ₄ +: 0.05 ... 12.8 mg/l; 0.005 ... 0.71 mmol/l*
Resolution (Display)	Range: 0.10 ... 10 mg/l; 0.01 mg/l 10.0 ... 100 mg/l; 0.1 mg/l 100 ... 1000/1280 mg/l; 1 mg/l	Range: 0.05 ... 10 mg/l; 0.01 mg/l*
Accuracy	±5% of the measured value ±0.2 mg/l at <1 mg/l NH ₄ -N ±5% of the measured value ±0.1 mg/l at 1.0 ... 100 mg/l NH ₄ -N	±5% of the measured value ±0.05 mg/l at <1 mg/l NH ₄ -N* ±5% of the measured value ±0.1 mg/l at 1.0 ... 10 mg/l NH ₄ -N*
Coefficient of Variation of Method	Range: 0.10 ... 10 mg/l: 3% 10.0 ... 100 mg/l: 4% 100 ... 1000/1280 mg/l: 5% (values for calibration with suitable standard solutions)	
Response time	< 3 min (after alternation in concentration at module input)	
Measuring Interval	Continuous Mode and 10, 15, 20, 25, 30 min interval selectable, AutoAdapt, Interval-Program	
Calibration	Automatic 2-point calibration (AutoCal) with two standard solutions	
Sample input	Approx. 0.3 l/h, solids content < 50 mg/l	
Consumption	Reagent, 10 l: 14/30/50 days at measuring intervals cont./20/30 min Standard solutions A/B, 1.5 l: 60 days with 24 Std. calibration interval Cleaning solution 1.5 l: 60 days with 24 Std. cleaning interval	
Maintenance Interval	Every 6 months	
Warranty	2 years for defects of quality	

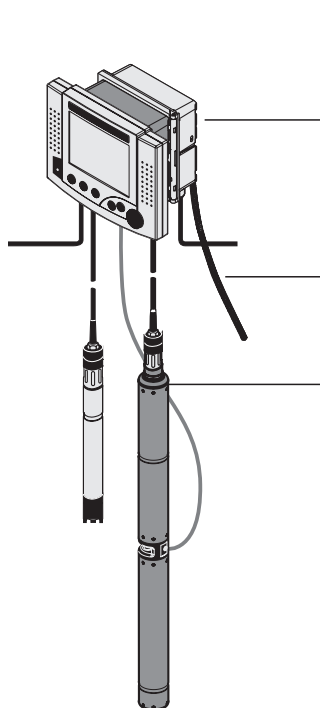
* in range of calibration standard

Technical Data NitraLyt®Plus	
Appropriate Electrodes	Reference electrode VARiON® Ref, Measuring electrode VARiON®Plus NO ₃ , Compensation electrode VARiON®Plus Cl
Measuring Ranges/ Resolution	NO ₃ -N: 1 ... 1000 mg/l / 1 mg/l; 0.1 ... 100.0 mg/l / 0.1 mg/l
	NO ₃ -: 5 ... 4500 mg/l / 5 mg/l; 0.5 ... 450.0 mg/l / 0.5 mg/l
	Cl ⁻ : 0.1 ... 1,000 mg/l / 0.1 mg/l
Temp. Measurement and Compensation	Integrated NTC thermistor Range: 32 ... 104 °F (0 °C ... +40 °C), Accuracy ±0.5 K, resolution 0.1 K, t ₉₅ < 20 s
Calibration Procedures	Matrix adjustment against any reference value, 2-point-calibration possible with multiple standard solution
Ambient Conditions	Operating temperature: 32 °F ... 104 °F (0 °C ... + 40 °C), storing temperature: 32 °F ... 104 °F (0 °C ... + 40 °C)
pH Range	pH 4 ... pH 11
Measuring Accuracy in laboratory standard solutions	± 5% of measured value ± 0.2 mg/l in standard solutions
Working Life (typically)	18 months (in typical application - municipal sewage plants)
Mechanical	Sensor body: V4A Stainless Steel 1.4571 Protective cap: POM, Temp. sensor: V4A Stainless Steel 1.4571 Protection rating: IP 68 (0.2 bar, with installed electrodes) Electrode connector: POM
Max. Pressure	Maximum 0.2 bar (incl. SACIQ sensor connection cable; with installed electrodes)
Power Consumption	0.2 Watt
Dimensions	15.43 x 1.57 in. (392 x 40 mm, length x diameter), incl. sensor connection cable SACIQ
Weight	Approx. 1.48 lb (670 g, without electrode, without sensor connection cable)
Warranty	NitraLyt®Plus 700 IQ: 2 years / Electrodes: 1 year for defects of quality



Measuring Point Configuration

NitraVis® (TS/NI) / NiCaVis® (NI) / UV 700 IQ NOx



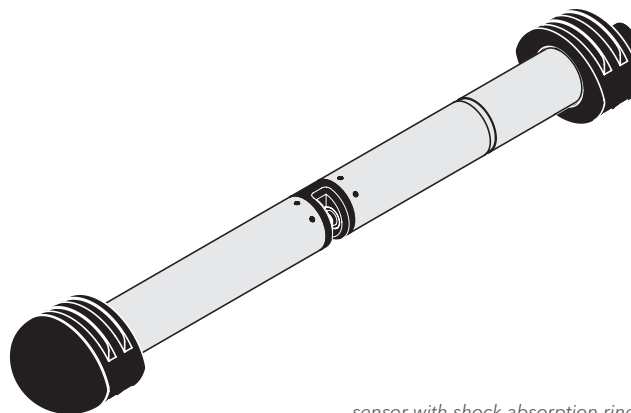
NitraVis® (TS/NI)- / NiCaVis® (NI)- / UV 700 IQ NOx-System

IQ SENSORNET

Optional air pressure cleaning:
 MIQ/CHV PLUS Order No. 480 018Y
 with external compressed air supply
 3-5 bar or usage of Cleaning Air Box
 Order No. 480 019Y

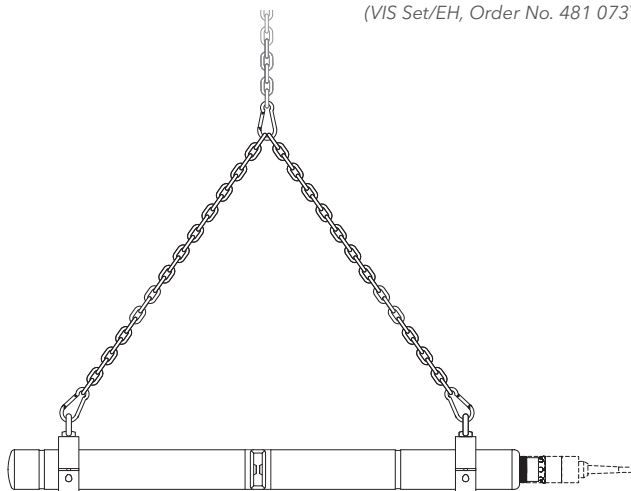
For both options please order
 air pressure cleaning set SET/AP
 Order No. 481075Y

- Optical Sensor:**
- NitraVis 701/705 IQ
Order No. 481 044Y/481 046Y
 - NitraVis® 701/705 IQ NI
Order No. 481 056Y/481 057Y
 - NitraVis 701/705 IQ TS
Order No. 481 045Y/481 047Y
 - NiCaVis 705 IQ
Order No. 481 052Y
 - NiCaVis 701/705 IQ NI
Order No. 481 054Y/481 055Y
 - UV 701/705 IQ NOx
Bestell-Nr. 481 034Y/ 481 035Y

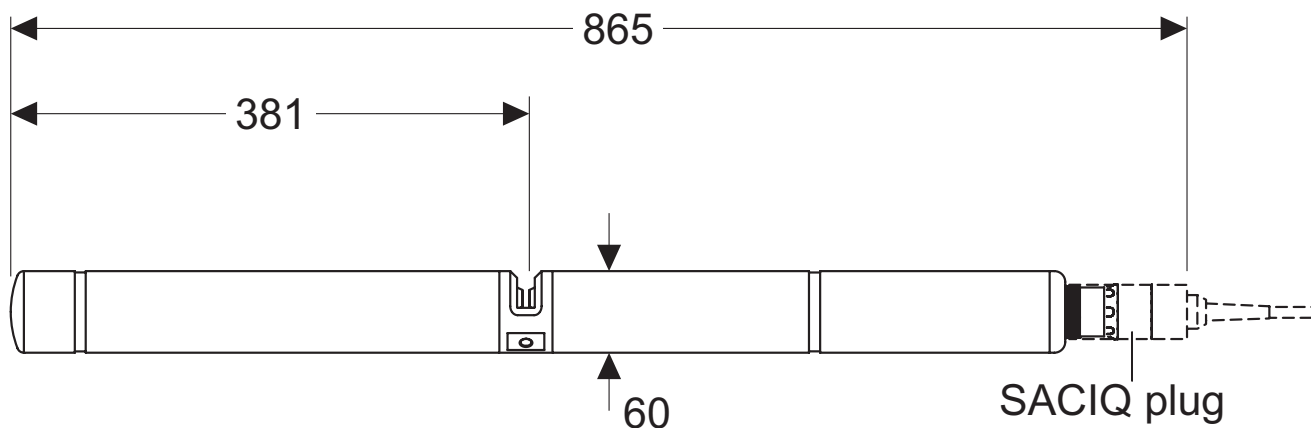


sensor with shock absorption rings

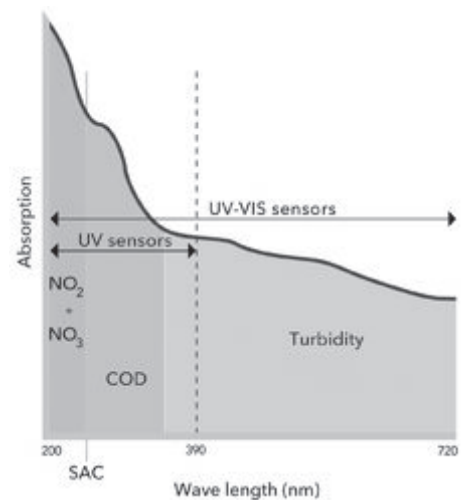
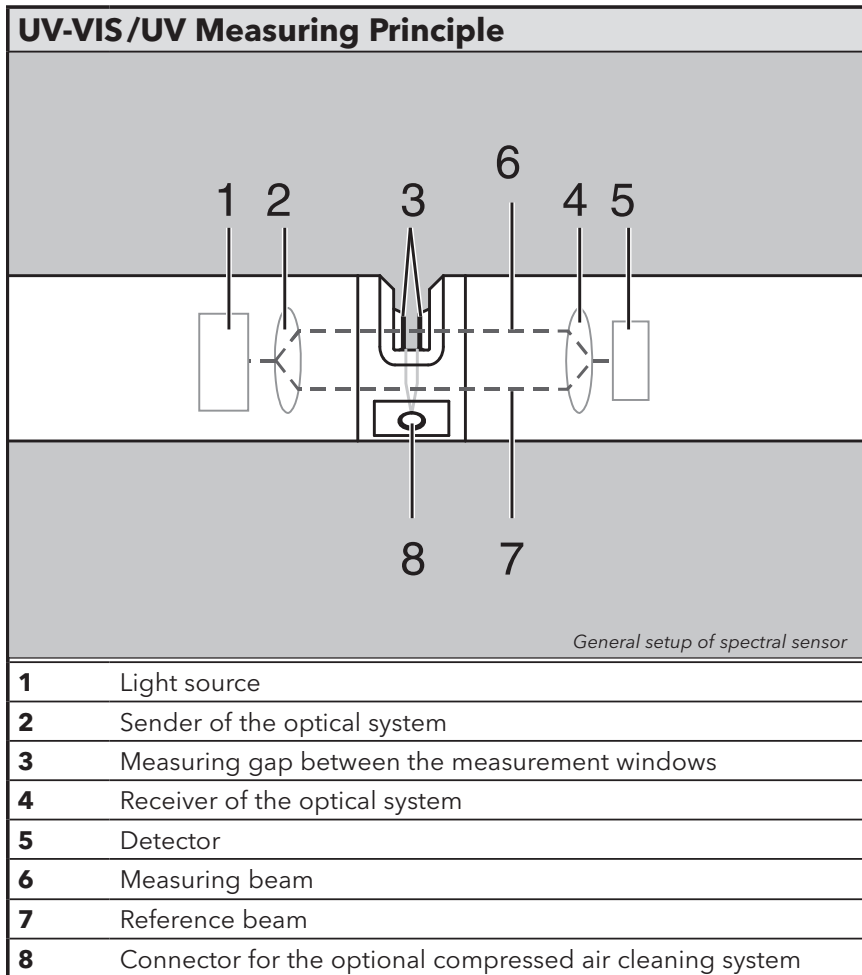
sensor with swing mounting assembly EH/F 170
 (VIS Set/EH, Order No. 481 073Y)



required components per measuring
 place: dark shaded



Technical Data UV 701/705 IQ NO _x		
Measuring Principle	UV Single Wavelengths Absorption Measurement	
	UV 701 IQ NO _x	UV 705 IQ NO _x
Applications	Wastewater, Surface Water	
Measuring Range (total)	NO _x -N: 0.0 ... 100.0 mg/l	NO _x -N: 0.0 ... 20.0 mg/l
Materials	Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Pressure Resistance	≤1 bar	
Ambient Conditions	Operating temperature: 32 °F ... 113 °F (0 °C ... +45 °C) Storage temperature: 14 °F ... 122 °F (-10 °C ... +50 °C)	
Flow Velocity	≤3 m/s	
pH Range	pH 4 ... pH 12	
Dimensions	31.57 x 2.36 in. (802 x 59.9 mm; length x diameter)	
Weight	Approx. 8.82 lb (4 kg)	
Warranty	2 years for defects of quality	



Technical Data NitraVis/NitraVis TS/NitraVis NI/NiCaVis/NiCaVis NI					
Spectral Measurement in the UV-VIS Range (200 - 720 nm) / UV Range (200 - 390 nm)					
Measuring Principle	NitraVis 701 IQ (NI/TS)	NitraVis 705 IQ (NI/TS)	NiCaVis 705 IQ	NiCaVis 701 IQ NI	NiCaVis 705 IQ NI
Applications	inlet aeration effluent	effluent	effluent	inlet aeration effluent	effluent
Measuring Range (total)	NO ₃ -N: 0.0 ... 150.0 mg/l NI additionally: NO ₂ -N: 0.00 ... 75.00 mg/l	NO ₃ -N: 0.1 ... 50.0 mg/l NI additionally: NO ₂ -N: 0.00 ... 25.00 mg/l	NO ₃ -N: 0.00 ... 50.00 mg/l COD: 0.0 ... 800.0 mg/l	NO ₃ -N: 0.0 ... 150.0 mg/l NO ₂ -N: 0.00 ... 75.00 mg/l COD: 0 ... 20,000 mg/l	NO ₃ -N: 0.00 ... 50.00 mg/l NO ₂ -N: 0.00 ... 25.00 mg/l COD: 0.0 ... 800.0 mg/l
Measuring Range Suspended Solids (Option)	TS additionally: inlet: 0.00 ... 15.00 g/l TSS aeration: 0.00 ... 20.00 g/l TSS	TS additionally: effluent: 0.0 ... 900.0 mg/l TSS	–	–	–
Materials	Housing: Titanium Grade 2, PEEK Window: Sapphire glass				
Pressure Resistance	≤1 bar				
Ambient Conditions	Operating temperature: 32 °F ... 113 °F (0 °C ... +45 °C) Storage temperature: 14 °F ... 122 °F (-10 °C ... +50 °C)				
Flow velocity	≤3 m/s				
pH range	pH 4 ... pH 12				
Dimensions	31.57 x 2.36 in. (802 x 59.9 mm; length x diameter)				
Weight	Approx. 8.82 lb (4 kg)				
Warranty	2 years for defects of quality				

Technical Data ON 210/OS 210	
Measuring Range	NO ₃ -N: 0.1 - 60 mg/l 0 - 4000 µmol/l NO ₃ : 0.1 - 250 mg/l 0 - 4000 µmol/l SAC: 0.1 - 200m ⁻¹
Resolution (Display)	Nitrate: Range: 0.1 ... 99.9 mg/l : 0.1 mg/l 100 ... 250 mg/l : 1 mg/l SAC: 0.1 m ⁻¹ (only OS 210)
Accuracy	±2% of the measured value ± 0.4 mg/l
Coefficient of variation for method	2%
Response Time	30 s (after alteration in concentration at module input)
Measuring interval	Continuous mode and 5, 10, 15, 20, 25, 30 min intervals selectable, AutoAdapt, Interval-Program
Calibration	Automatic zero balance, works calibration
Sample Flow Rate	0.5 l/hr approx., suspended solids content <50 mg/L
Consumption	Distilled water, 10 l: 130 days with 24 h interval for zero balance Cleaning solution, 1.5 l: 120 days with 24 h cleaning interval
Maintenance Interval	Every 6 months
Warranty	2 years for defects of quality

Technical Data ON 510	
Measuring Range	NO ₂ -N: 0.005 - 1.200 mg/l 0.40 - 90 µmol/l NO ₂ -: 0.020 - 4.000 mg/l 0.40 - 90 µmol/l
Resolution (Display)	Range: 0.005 ... 1.200 mg/l: 0.001 mg/l 0.020 ... 4.000 mg/l: 0.001 mg/l 0.40 ... 90.00 µmol/l: 0.1 µmol/l
Accuracy	±2% of the measured value ±0.05 mg/l NO ₂ -N
Coefficient of variation for method	1%
Response Time	< 5 min to measured value (after alteration in concentration at module input)
Measuring interval	5, 10, 15, and 20 min intervals selectable, AutoAdapt, Interval-Program
Calibration	Automatic 2-point calibration, time and interval selectable
Background Correction	Continuous background compensation based on new WTW algorithm
Sample input	Approx. 0.06 l/h, solid content < 50 mg/l
Consumption	Reagent, 1 l: 20/40/80 days with 5/10/20 min measuring interval Standard B, 1 l: 80 days with 24 h calibration interval Cleaning solution, 1.5 l: 45 days with 24 h cleaning interval
Maintenance Interval	Every 6 months
Warranty	2 years for defects of quality

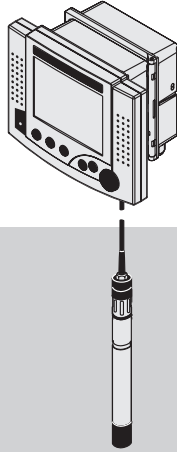
System Configurations Digital Systems

IQ SENSORNET System 2020 XT

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

Example 1 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensor	user selected

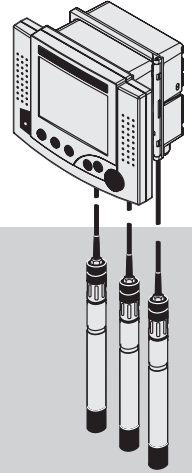


- Starter Set
MIQ/TC 2020 XT-H3
consisting of:
- MIQ/TC 2020 XT (Terminal/Controller)
 - MIQ/CR3 (3 x mA, 3 x relays)
 - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
 - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

Example 2 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT-H3	470 016Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected

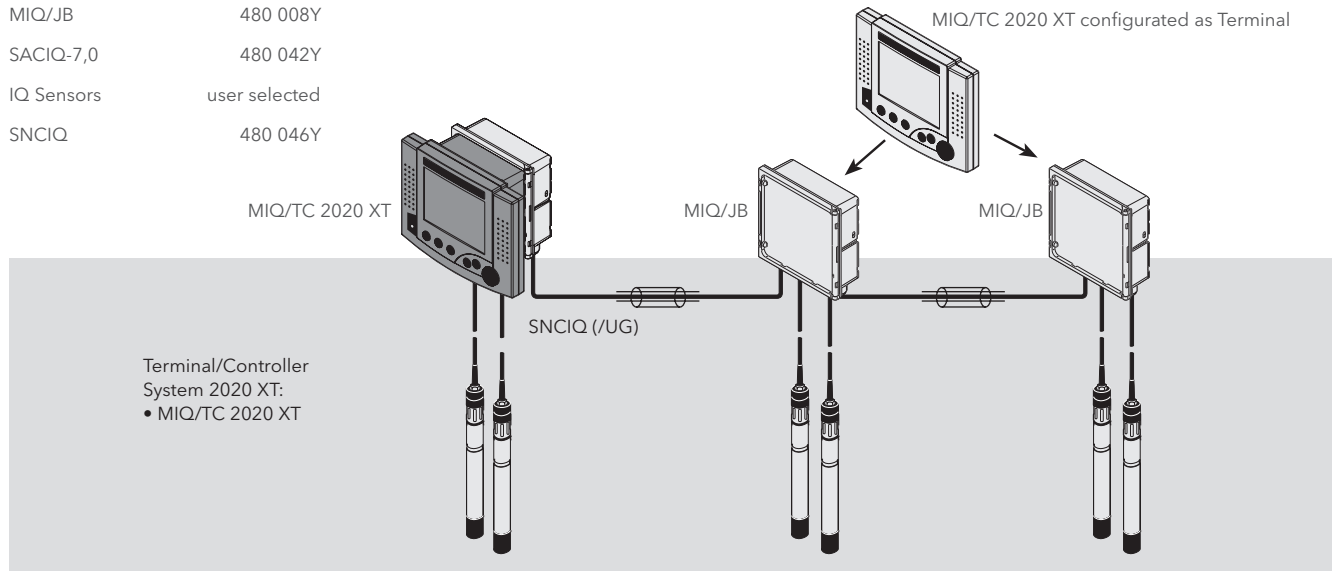


- Starter Set
MIQ/TC 2020 XT-H3
consisting of:
- MIQ/TC 2020 XT (Terminal/Controller)
 - MIQ/CR3 (3 x mA, 3 x Relays)
 - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
 - 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

Example 3 System 2020 XT

Configuration Example	Order No.
MIQ/TC 2020 XT	470 000Y
MIQ/PS	480 004Y
MIQ/C6	480 015Y
MIQ/JB	480 008Y
SACIQ-7,0	480 042Y
IQ Sensors	user selected
SNCIQ	480 046Y



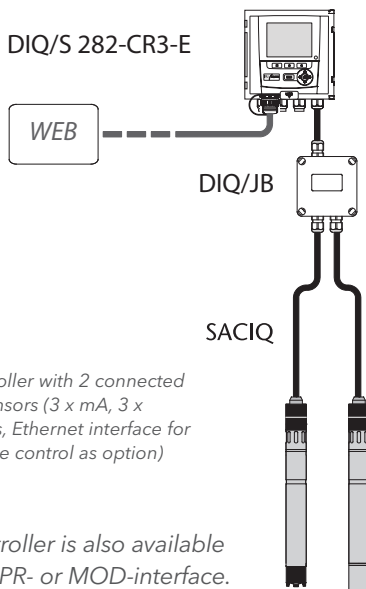
Branched system 2020 XT for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 XT terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

System Configurations Digital Systems

IQ SENSORNET System 282/284

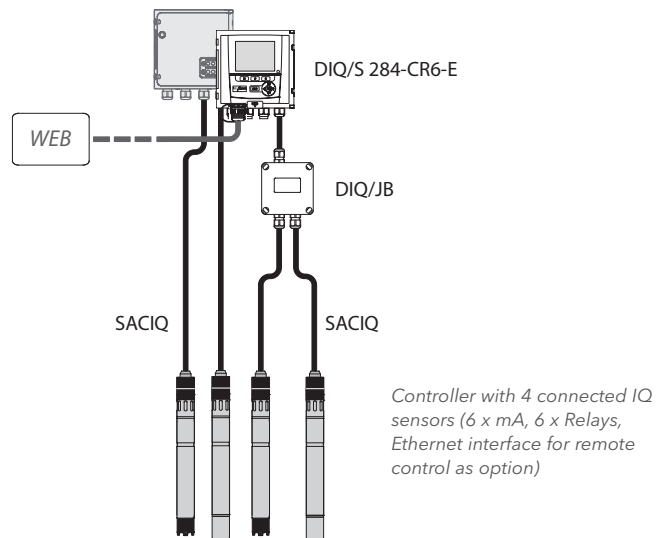
Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113Y
2 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
2 x IQ sensors	user selected



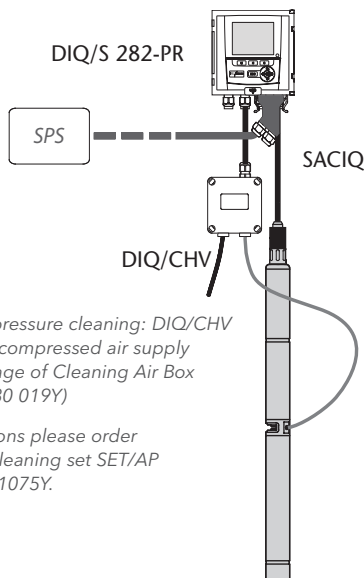
Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133Y
4 x SACIQ-7,0	480 042Y
DIQ/JB	472 005Y
4 x IQ sensors	user selected



Example 3

Spectral sensor and PROFIBUS	Order No.
DIQ/S 282-PR	472 111Y
1 x SACIQ-7,0	480 042Y
1 spectral sensor	user selected



Carbon: COD/BOD/TOC/DOC/SAC/UVT

Parameter	Sensors																		
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	Ammolyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ	
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5	
Parameter																			
TSS (optical)						●				●		●							
Nitrate (ion-selective)								●	●										
Nitrate (optical/spectral)										●	●		●	●		●			
Nitrite (optical/spectral)											●			●					
COD (optical/spectral)												●	●	●					
BOD (optical/spectral)												●	●	●					
TOC (optical/spectral)												●	●	●					
DOC (optical/spectral)												●	●	●					
SAC (optical/spectral)												●	●	●	●				
UVT (optical/spectral)												●	●	●	●				

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Model	Description	Order No.
SAC/UVT Sensor		
UV 701 IQ SAC	Optical SAC and UVT sensor (254 nm), for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 036Y
UV 705 IQ SAC	Optical SAC and UVT sensor (254 nm), for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 038Y
Spectral Sensors Carbon		
CarboVis 701 IQ	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/BNR part of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 048Y
CarboVis 701 IQ TS	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/aeration part of municipal wastewater treatment plants with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 049Y
CarboVis 705 IQ	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 050Y

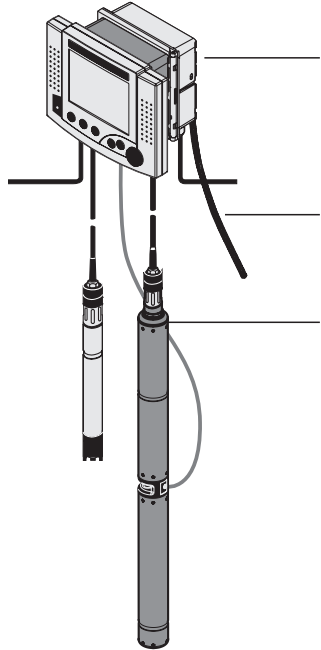
Model	Description	Order No.
CarboVis 705 IQ TS	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 051Y
NiCaVis 705 IQ	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 , for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 052Y
NiCaVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 054Y
NiCaVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 055Y
Accessories Spectral Sensors (Carbon)		
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472 007Y
Cleaning Air Box - 115 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480 017Y
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y
Cleaning Air Box - 230 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480 019Y
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-SO	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
VIS FT-1	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480 080Y
VIS FT-1/RS	Spare part set for flow-thru measuring cell VIS FT-1	480 081Y
VIS Set Brushes/1mm	Brushes for cleaning of UVVIS sensors, Set with 2 brushes for 1 mm path length	481 031Y
VIS Set Brushes/5mm	Brushes for cleaning of UVVIS sensors, Set with 2 brushes for 5 mm path length	481 032Y
VIS/CT	Universal cleaning tool for spectral sensors.	481 071Y
VIS/CV	Multifunctional slide for spectral sensors.	481 074Y
SET/AP	Air pressure cleaning set for spectral sensors: Supplied with 15 m (49 ft) tubing, fittings, without further modules and components.	481 075Y
ST-1	Standard with low concentration for 5 mm spectral sensors.	481 077Y
ST-2	Standard with high concentration for 1 mm spectral sensors.	481 078Y
VIS/CS	Universal cleaning tool set for cleaning of measuring windows of spectral sensors with cleaning solutions.	481 079Y

*** Sensor variation with different cable length („-SO“): Additional costs depending on cable length.



Measuring Point Configuration

CarboVis® (TS)/NiCaVis® (NI)/UV 70x IQ SAC



CarboVis (TS)/NiCaVis® (NI)/UV 70x IQ SAC-System

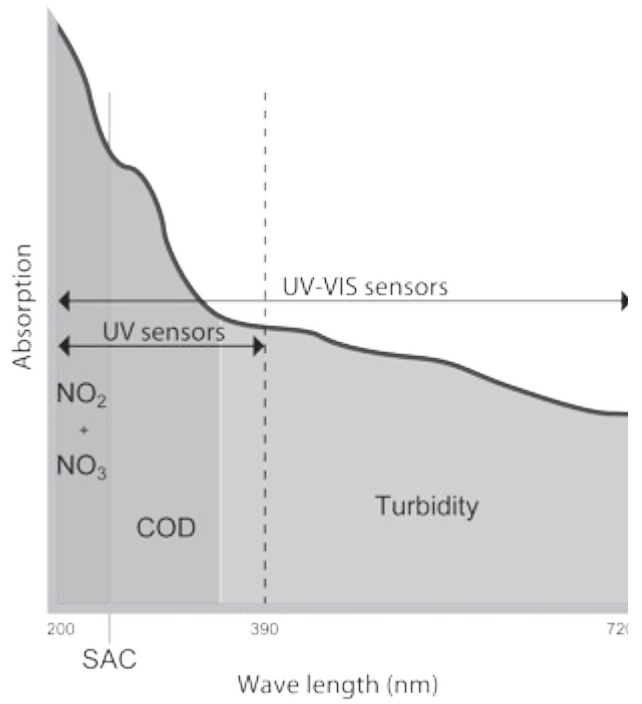
IQ SENSORNET

Optional air pressure cleaning:
 MIQ/CHV PLUS Order No. 480 018Y
 with external compressed air supply
 3-5 bar or usage of Cleaning Air Box
 Order No. 480 019Y

*For both options please order
 air pressure cleaning set SET/AP
 Order No. 481 075Y.*

Optical Sensor:

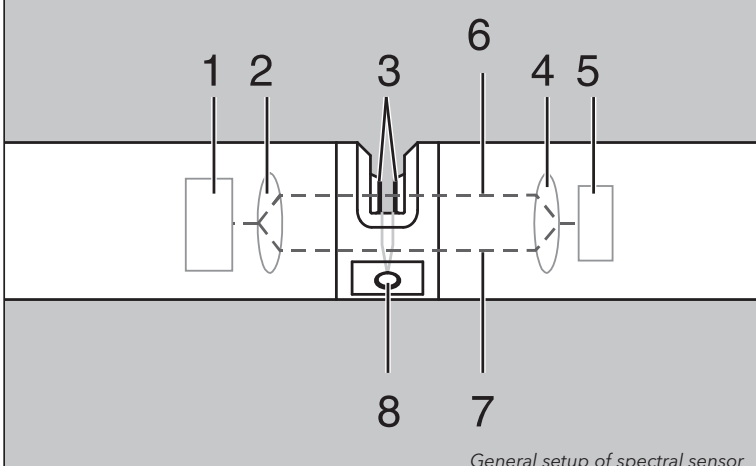
- **CarboVis 701/705 IQ**
Order No. 481 048Y/481 050Y
- **CarboVis 701/705 IQ TS**
Order No. 481 049Y/481 051Y
- **NiCaVis 705 IQ**
Order No. 481 052Y
- **NiCaVis 701/705 IQ NI**
Order No. 481 054Y/481 055Y
- **UV 701/705 IQ SAC**
Order No. 481 036Y/481 038Y



required components per measuring place: dark shaded



UV-VIS/UV Measuring Principle

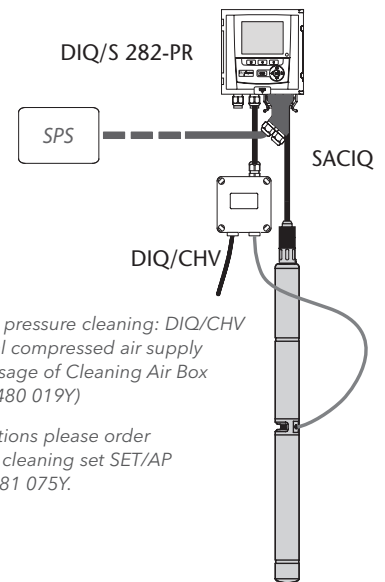


1	Light source
2	Sender of the optical system
3	Measuring gap between the measurement windows
4	Receiver of the optical system
5	Detector
6	Measuring beam
7	Reference beam
8	Connector for the optional compressed air cleaning system

General setup of spectral sensor

Example 1

Spectral sensor and PROFIBUS	Order No.
DIQ/S 282-PR	472 111Y
1 x SACIQ-7,0	480 042Y
1 spectral sensor	user selected



*Optional air pressure cleaning: DIQ/CHV
 with external compressed air supply
 3-5 bar or usage of Cleaning Air Box
 (Order No. 480 019Y)*

*For both options please order
 air pressure cleaning set SET/AP
 Order No. 481 075Y.*

*Controller with connected spectral sensor
 (3 x Relays, RS485 interface to transfer data
 to a PLC via PROFIBUS)*

Technical Data UV 701/705 IQ SAC		
Measuring Principle	UV Absorption Measurement 254 nm (Compensation 550 nm)	
	UV 701 IQ SAC	UV 705 IQ SAC
Applications	Wastewater, Surface Water	
Measuring Range (total)	SAC: 0.0-3,000 m ⁻¹ UVT: 0.0-100.0%	SAC: 0.0-600.0 m ⁻¹ UVT: 0.0-100.0%
Materials	Housing: Titan Grade 2, PEEK Window: Sapphire glass	
Pressure Resistance	≤1 bar	
Ambient Conditions	Operating temperature: 32 °F ... 113 °F (0 °C ... +45 °C) Storage temperature: 14 °F ... 122 °F (-10 °C ... +50 °C)	
Flow Velocity	≤3 m/s	
pH Range	pH 4 ... pH 12	
Dimensions	31.57 x 2.36 in. (802 x 59.9 mm; length x diameter)	
Weight	Approx. 8.82 lb (4 kg)	
Warranty	2 years for defects of quality	

Technical Data CarboVis (TS)/NiCaVis /NiCaVis NI					
Measuring Principle	Spectral measurement in the UV-VIS range (200 - 720 nm) / UV range (200 - 390 nm)				
	CarboVis 701 IQ (TS)	CarboVis 705 IQ (TS)	NiCaVis 705 IQ	NiCaVis 701 IQ NI	NiCaVis 705 IQ NI
Applications Municipal wastewater	inlet, aeration, effluent	effluent	effluent	inlet, aeration, effluent	effluent
Measuring Ranges (total)	COD: 0 ... 20,000 mg/l TOC: 0 ... 20,000 mg/l SAC: 0 ... 5,000 m ⁻¹ DOC: 0 ... 12,500 mg/l BOD: 0 ... 8,000 mg/l UVT: 0.0 ... 100.0%	COD: 0.0 ... 800.0 mg/l TOC: 0.0 ... 500.0 mg/l SAC: 0.0 ... 600.0 m ⁻¹ DOC: 0.0 ... 500.0 mg/l BOD: 0.0 ... 500.0 mg/l UVT: 0.0 ... 100.0%	COD: 0.0 ... 800.0 mg/l TOC: 0.0 ... 500.0 mg/l SAC: 0.0 ... 600.0 m ⁻¹ NO ₃ -N: 0.00 ... 50.00 mg/l DOC: 0.0 ... 500.0 mg/l BOD: 0.0 ... 500.0 mg/l UVT: 0.0 ... 100.0%	COD: 0 ... 20,000 mg/l TOC: 0 ... 20,000 mg/l SAC: 0 ... 5,000 m ⁻¹ DOC: 0 ... 12,500 mg/l BOD: 0 ... 8,000 mg/l UVT: 0.0 ... 100.0% NO ₃ -N: 0.0 ... 150.0 mg/l NO ₂ -N: 0.00 ... 75.00 mg/l	COD: 0.0 ... 800.0 mg/l TOC: 0.0 ... 500.0 mg/l SAC: 0.0 ... 600.0 m ⁻¹ DOC: 0.0 ... 500.0 mg/l BOD: 0.0 ... 500.0 mg/l UVT: 0.0 ... 100.0% NO ₃ -N: 0.00 ... 50.00 mg/l NO ₂ -N: 0.00 ... 25.00 mg/l
Measuring Ranges TSS (Option)	Inlet: 0 ... 15.00 g/l TSS Effluent: 0 ... 4,500 mg/l TSS	Effluent: 0.0 ... 900.0 mg/l TSS	–	–	–
Materials	Housing: Titanium Grade 2, PEEK Window: Sapphire glass				
Pressure Resistance	≤1 bar				
Ambient Conditions	Operating temperature: 32 °F ... 113 °F (0 °C ... +45 °C) Storage temperature: 14 °F ... 122 °F (-10 °C ... +50 °C)				
Flow Velocity	≤3 m/s				
pH Range	pH 4 ... pH 12				
Salt Content of Medium	< 5000 mg/l (Chloride)				
Dimensions	31.57 x 2.36 in. (802 x 59.9 mm; length x diameter)				
Weight	Approx. 8.82 lb (4 kg)				
Warranty	2 years for defects of quality				



Phosphate

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	Sensolyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Orthophosphate (optical/wet chemical)																		●

* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Model	Description	Order No.
TresCon® Orthophosphate		
OP 210/ MB 1	Separate TresCon® analyzer module for on-line measurement of orthophosphate. Range: 1, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 3 month operation (R/P211/S/BI/P211/R/A111), annual need tubing (Epack/P211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) and 2x 1.5 l container for H ₂ O dest./ cleaning solution (BEH/T1,5).	820 004Y
OP 210/ MB 2	Separate TresCon® analyzer module for on-line measurement of orthophosphate. Range: 2, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 3 month operation (R/P211/S/BII/P211/R/A111), annual need tubing (Epack/P211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) and 2x 1.5 l container for H ₂ O dest./ cleaning solution (BEH/T1,5).	820 005Y
OP 210/ MB 3	Separate TresCon® analyzer module for on-line measurement of orthophosphate. Range: 3, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 3 month operation (R/P211/S/BIII/P211/R/A111), annual need tubing (Epack/P211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) and 2x 1.5 l container for H ₂ O dest./ cleaning solution (BEH/T1,5).	820 006Y
TCU/P211-MB1	TresCon® Uno single parameter system with module OP 210/MB1 for on-line measurement of orthophosphate: Range 1, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 104Y

Model	Description	Order No.
TCU/P211-MB2	TresCon® Uno single parameter system with module OP 210/MB2 for on-line measurement of orthophosphate: Range 2, incl. Manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 105Y
TCU/P211-MB3	TresCon® Uno single parameter system with module OP 210/MB3 for on-line measurement of orthophosphate: Range 3, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 106Y
Accessories TresCon® Orthophosphate		
BEH/ T 1,5	1.5 l wide-necked bottle (with screw cap and labels).	821 017Y
BEH/ T 10	10 l container (with screw cap and labels).	821 019Y
BSet/P211	Container set for analyzer module ammonia OA 110 resp. TresCon® A111 and TresCon® Uno TCU/A111.	821 058Y
R/ A111	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821 075Y
R/ P211	10 l reagent solution for orthophosphate TresCon® module OP 210... (TresCon® P211... and TCU/P211...), 12 % salt acid.	821 091Y
S/ BI - P211	Standard solution B-I (1.6 mg/l PO ₄ -P) 1.5 l, for orthophosphate TresCon® module OP 210/MB 1 (resp. TresCon® P211 MB 1, TCU/P211 MB 1, OP 511, P 511).	821 121Y
S/ BII - P211	Standard solution B-II (8 mg/l PO ₄ -P), 1.5 l for orthophosphate TresCon® module OP 210/MB 2, TresCon® P211 MB 2 and TCU/P211 MB 2.	821 122Y
S/ BIII - P211	Standard solution B-III (20 mg/l PO ₄ -P), 1.5 l for orthophosphate TresCon® module OP 210/MB 3 TresCon® P211 MB 3 and TCU/P211 MB 3.	821 123Y
C/TCM1	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821 156Y
EL/ TC	Spare lamp for photometer block.	821 175Y
Wpack/ P211	Set of maintenance kit (fittings and spare tubes) for TresCon® phosphate analyzer module OP 210/..., TresCon® P211...and TCU/P211...	821 195Y
BA/P211/d	Instruction manual TresCon® P211/German.	BA4 3109dY
BA/P211/e	Instruction manual TresCon® P211/English.	BA4 3109eY
TresCon® Total Phosphate		
OP 510	Separate TresCon® analyzer module for on-line measurement of total phosphorus, for extension of a TresCon® system, incl. Manual. Supplied with cooling box (KB/P511), reagents for 60 days (S/BI-P21, 4x R/P511), annual need tubing (Epack/N211), overflow vessel (TC/ÜB1), 10 l container (BETH/10) and 1.5 l container (BEH/T1,5).	820 011Y
Accessories TresCon® Total Phosphate		
BEH/ T 1,5	1.5 l wide-necked bottle (with screw cap and labels).	821 017Y
BEH/ T 10	10 l container (with screw cap and labels).	821 019Y
BSet/P511	Container set for total phosphor TresCon® module OP 510 (resp. TresCon® P511).	821 059Y
KB/P511	Cooling box for Ptotal reagents for total phosphor TresCon® module.	821 068Y
R/ ADD/ TC	Pack of Na2-EDTA powder (390 g) as reagent additive for 10 l.	821 071Y
R/ A111	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821 075Y
RD/P511	Reagent D for module OP 510 (resp. TresCon® P511).	821 096Y
RC/P511	Reagent C for module OP 510 (resp. TresCon® P511).	821 097Y
RB/P511	Reagent B for module OP 510 (resp. TresCon® P511).	821 098Y
RA/P511	Reagent A for module OP 510 (resp. TresCon® P511).	821 099Y
S/ BI - P211	Standard solution B-I (1.6 mg/l PO ₄ -P) 1.5 l, for orthophosphate TresCon® module OP 210/MB 1 (resp. TresCon® P211 MB 1, TCU/P211 MB 1, OP 511, P 511).	821 121Y
C/TCM1	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821 156Y
EL/ TC	Spare lamp for photometer block.	821 175Y
Wpack/P511	Set of maintenance kit (fittings and spare tubes) for TresCon® total phosphorus analyzer module OP 510, TresCon® P511.	821 201Y
BA/P211/d	Instruction manual TresCon® P211/German.	BA4 3109dY
BA/P211/e	Instruction manual TresCon® P211/English.	BA4 3109eY
BA/511/d	Instruction manual TresCon® P511/German.	BA4 3121dY
BA/511/e	Instruction manual TresCon® P511/English.	BA4 3121eY



Model	Description	Order No.
P700 IQ Orthophosphate		
P700 IQ-I115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, indoor, 115V. Scope of delivery: Indoor Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-000Y
P700 IQ-O115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET outdoor, 115V. Scope of delivery: Onsite Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-001Y
P700 IQ-PI115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, indoor, 115V. Scope of delivery: Indoor Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-010Y
P700 IQ-PO115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, outdoor, 115V. Scope of delivery: Onsite Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-011Y
P700 IQ-I230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, indoor, 230V. Scope of delivery: Indoor Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-100Y
P700 IQ-O230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, outdoor, 230V. Scope of delivery: Onsite Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-101Y
P700 IQ-PI230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, indoor, 230V. Scope of delivery: Indoor Orthophosphate analyzer with integrated permeate pump, without power cable (Umformer, connection cable SNCIQ: please order separately)	8P-110Y
P700 IQ-PO230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, outdoor, 230V. Scope of delivery: Onsite Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-111Y
Filtration P700 IQ		
Filter	Set of 2 filter membranes for filter membrane module FM and module case FM-Case	821 972Y
FM-Case	Module case for filter membranes. Included: Module case without filter membranes (Please order filter membranes separately)	821 973Y
SL 5	Suction tube with slide, unheated, 5 m (16.2 ft)	821 978Y
FM	Filter membrane module with premounted membrane	821 987Y
Filter/PC	Filter module for applications with intense mechanical stress. For housing FM-Case/PC.	821 940Y
FM-Case/PC	Housing for applications with intense mechanical stress. For filter module Filter/PC.	821 941Y
FM-B	Cleaning brush for P700 IQ filter membrane module	821 968Y
FM-Adapter	Adapter for horizontal mounting of filter membrane module FM	821 983Y
Filter-CL	Cleaning case for filter membranes	821 984Y
M-EXT 1.5	Extension for attachment M 1.5. Included: Extension 1.5 m, chain, bracket	821 985Y
M 1.5	Attachment for filtration. Included: Rail 1.5 m (4.9 ft), chain, bracket	821 986Y
RL 20	Permeate return line, unheated, 20 m (65 ft)	821 954Y
RL 115-20	Permeate return line, heated, 115 VAC, 20 m (65 ft)	821 955Y
RL 230-20	Permeate return line, heated, 230 VAC, 20 m (65 ft)	821 956Y
SL 20	Suction tube with slide, unheated, 20 m (65 ft)	821 957Y
SL 115-20	Suction tube with slide, heated, 115 VAC, 20 m (65 ft)	821 959Y
SL 230-20	Suction tube with slide, heated, 230 VAC, 20 m (65 ft)	821 960Y
RL 10	Permeate return line, unheated, 10 m (32 ft)	821 964Y
RL 115-10	Permeate return line, heated, 115 VAC, 10 m (32 ft)	821 965Y
RL 230-10	Permeate return line, heated, 230 VAC, 10 m (32 ft)	821 966Y
RL 2	Permeate return line, unheated, 2 m (6.5 ft)	821 974Y
RL 115-2	Permeate return line, heated, 115 VAC, 2 m (6.5 ft)	821 975Y
RL 230-2	Permeate return line, heated, 230 VAC, 2 m (6.5 ft)	821 976Y
SL 10	Suction tube with slide, unheated, 10 m (33 ft)	821 977Y
SL 115-10	Suction tube with slide, heated 115 VAC, 10 m (33 ft)	821 979Y
SL 230-10	Suction tube with slide, heated, 230 VAC, 10 m (33 ft)	821 980Y
SL 115-5	Suction tube with slide, heated 115 VAC, 5 m (16.2 ft)	821 981Y
SL 230-5	Suction tube with slide, heated, 230 VAC, 5 m (16.2 ft)	821 982Y
Accessories P700 IQ		
Filter-REP	Replacement air filter for fan of P700 IQ	821 969Y
ST-BT	Bottle top with tube	821 970Y
ST 0.0	Standard solution 0.0 mg/l PO ₄ -P (zeroing) for P700 IQ (1.0l)	821 971Y
RM	Rail mount for P700 IQ	821 988Y
WM	Wall mount for P700 IQ	821 989Y

Model	Description	Order No.
LED	Replacement LED for photometer unit	821 990Y
SM	Stand mount for P700 IQ	821 991Y
T SET B	Set of replacement parts (fittings and spare tubes)	821 992BY
PT	Replacement pump tube	821 993Y
PM	Replacement pump motor for peristaltic pump	821 994Y
ST 20.0	Standard solution 20.0 mg/l PO ₄ -P for P700 IQ (1.0 l)	821 995Y
ST 8.0	Standard solution 8.0 mg/l PO ₄ -P for P700 IQ (1.0 l)	821 996Y
ST 1.6	Standard solution 1.6 mg/l PO ₄ -P for P700 IQ (1.0 l)	821 997Y
CL 1.0	Cleaning solution for P700 IQ (1.0 l)	821 998Y
RE 2.5	Reagent for P700 IQ for orthophosphate measurement (2.5 l)	821 999Y



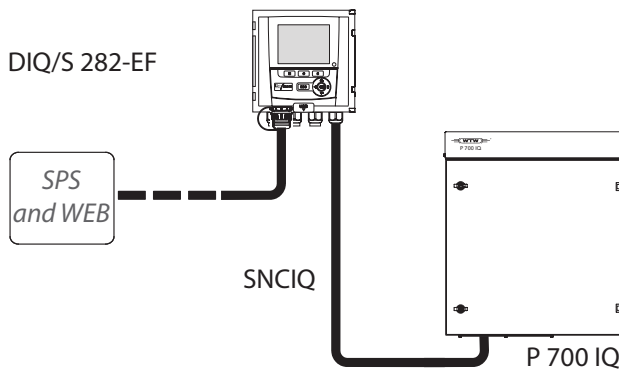
a xylem brand

Technical Data P700 IQ	
Measuring method	Molybdate-vanadate (yellow method)
Measuring range	Measuring range A: 0.05 ... 15.00 mg/l PO ₄ -P Measuring range B: 1 ... 50 mg/l PO ₄ -P
Resolution	Measuring range A: 0.01 mg/l PO ₄ -P Measuring range B: 1 mg/l PO ₄ -P
Accuracy	Measuring range A: ± 2 %, ± 0.05 mg/l Measuring range B: ± 2 %, ± 1 mg/l
Response time t₉₀	< 5 min
Detection limit	Measuring range A: 0.05 mg/l PO ₄ -P Measuring range B: 1 mg/l PO ₄ -P
pH range	5 ... 9
Sample temperature	39.2 ... 113 °F (4 ... 45 °C)
Measuring interval	< 5 min (adjustable)
Operating temperature	Indoor Version +59...+104°F (+15...40°C) Outdoor Version -4...+104°F (-20...40°C)
Storage temperature	-4 ... 122 °F (-20 ... 50 °C)
Reagent consumption	2500 ml container for 8 months at a measuring range (A) at a 10 min measurement interval 2500 ml container for 4 months at a measuring range (B) at a 10 min measurement interval
Cleaning Solution	1000 ml for 4 months with daily cleaning
Conformity	230 V: CE 115 V: CE, cETLus
Equipment safety	EN 61010-1; UL 61010-1, CAN/CSA C22.2#61010-1
Climate control	Heater and fan
Power supply	115/230 VAC
Weight	~66 lb (~30 kg; without reagents)
Dimensions	32.48 x 27.01 x 17.24 in. 825 x 686 x 438 mm
Outputs	Relays, analog outputs, interfaces via System 2020 XT and 282/284
Calibration	Manual or automatic (adjustable)
Usable with	IQ SENSORNET System 2020 XT/282/284



Technical Data P700 IQ Filtration	
Membrane area:	155.00 in ² (1.000 cm ²)
Maximum operating temperature:	113 °F (45 °C)
Maximum operating overpressure (Raw water to permeate side):	2.0 bar at 68 °F (20 °C)
Operating under pressure (permeate side):	approx. 0.5 bar at 68 °F (20 °C)
Materials:	Housing: PVC Seals: NBR Screws: Stainless steel

Setup of measurement location Orthophosphate Analyzer



Controller with connected P700 IQ
(3 x Relays, Ethernet interface for remote control and equipped with fieldbusses to transfer data to a PLC)

P700 IQ

IQ SENSORNET

Orthophosphate Analyzer usable with System 2020 XT and System 282/284.
Components of example left:

Orthophosphate Analyzer

- P700 IQ-PO230

Order No. 8P-111Y

optional without integrated permeate pump:

- P700 IQ-O230

Order No. 8P-101Y

Controller

- DIQ/S 282-EF

Order No. 472 114Y

Connection cable

- SNCIQ

Order No. 480 046Y

Chemicals

see previous pages

Optional: Filtration

see previous pages

Technical Data OP 210													
Measuring Ranges	<table border="0"> <tr> <td></td> <td>PO₄-P</td> <td>PO₄</td> </tr> <tr> <td>Measuring range 1:</td> <td>0.05 - 3.00 mg/l; 1.5 - 100 µmol/l</td> <td>0.15 - 9.00 mg/l; 1.5 - 100 µmol/l</td> </tr> <tr> <td>Measuring range 2:</td> <td>0.1 - 10.0 mg/l; 3 - 320 µmol/l</td> <td>0.3 - 30.0 mg/l; 3 - 320 µmol/l</td> </tr> <tr> <td>Measuring range 3:</td> <td>0.1 - 25.0 mg/l; 3 - 800 µmol/l</td> <td>0.3 - 80.0 mg/l; 3 - 800 µmol/l</td> </tr> </table>		PO ₄ -P	PO ₄	Measuring range 1:	0.05 - 3.00 mg/l; 1.5 - 100 µmol/l	0.15 - 9.00 mg/l; 1.5 - 100 µmol/l	Measuring range 2:	0.1 - 10.0 mg/l; 3 - 320 µmol/l	0.3 - 30.0 mg/l; 3 - 320 µmol/l	Measuring range 3:	0.1 - 25.0 mg/l; 3 - 800 µmol/l	0.3 - 80.0 mg/l; 3 - 800 µmol/l
	PO ₄ -P	PO ₄											
Measuring range 1:	0.05 - 3.00 mg/l; 1.5 - 100 µmol/l	0.15 - 9.00 mg/l; 1.5 - 100 µmol/l											
Measuring range 2:	0.1 - 10.0 mg/l; 3 - 320 µmol/l	0.3 - 30.0 mg/l; 3 - 320 µmol/l											
Measuring range 3:	0.1 - 25.0 mg/l; 3 - 800 µmol/l	0.3 - 80.0 mg/l; 3 - 800 µmol/l											
Resolution (Display)	<table border="0"> <tr> <td>Measuring range 1:</td> <td>0.01 mg/l or 0.1 µmol/l</td> </tr> <tr> <td>Measuring range 2:</td> <td>0.1 mg/l or 1 µmol/l</td> </tr> <tr> <td>Measuring range 3:</td> <td>0.1 mg/l or 1 µmol/l</td> </tr> </table>	Measuring range 1:	0.01 mg/l or 0.1 µmol/l	Measuring range 2:	0.1 mg/l or 1 µmol/l	Measuring range 3:	0.1 mg/l or 1 µmol/l						
Measuring range 1:	0.01 mg/l or 0.1 µmol/l												
Measuring range 2:	0.1 mg/l or 1 µmol/l												
Measuring range 3:	0.1 mg/l or 1 µmol/l												
Accuracy	±2 % of the measured value ±0.01 mg/l PO ₄ -P (Measuring range 1) ±2 % of the measured value ±0.1 mg/l PO ₄ -P (Measuring range 2 and 3)												
Coefficient of Variation for Method	2% (for all measuring ranges)												
Response Time	< 4 min to measured value (after alteration in concentration at module input)												
Measuring Interval	Quasi-continuous measurement, 5, 10, 15, 20, 25 or 30 min settings												
Calibration	Automatic 2-point calibration (time and interval selectable)												
Background Correction	Continuous background compensation based on new WTW algorithm												
Sample Input	Approx. 0.06 l/h, solid content < 50 mg/l (e.g. sewage treatment plant effluent)												
Consumption	<table border="0"> <tr> <td>Reagent, 10 l:</td> <td>60/155/310/465 days with cont./10/20/30 min measuring intervals</td> </tr> <tr> <td>Standard B 1.5 l:</td> <td>90 days with 24 h calibration interval</td> </tr> <tr> <td>Cleaning solution, 1.5 l:</td> <td>45 days with 24 h cleaning interval</td> </tr> </table>	Reagent, 10 l:	60/155/310/465 days with cont./10/20/30 min measuring intervals	Standard B 1.5 l:	90 days with 24 h calibration interval	Cleaning solution, 1.5 l:	45 days with 24 h cleaning interval						
Reagent, 10 l:	60/155/310/465 days with cont./10/20/30 min measuring intervals												
Standard B 1.5 l:	90 days with 24 h calibration interval												
Cleaning solution, 1.5 l:	45 days with 24 h cleaning interval												
Maintenance Interval	Every 6 months												
Warranty	2 years for defects of quality												

Technical Data OP 510							
Measuring Ranges	P _{Total} : 0.01 ... 3.00/6.00; 0.3 ... 100/200						
Resolution (Display)	<table border="0"> <tr> <td>Range:</td> <td>0.01 ... 3.00 mg/l :</td> <td>0.01 mg/l</td> </tr> <tr> <td></td> <td>0.30 ... 100 µmol/l :</td> <td>0.1 µmol/l</td> </tr> </table>	Range:	0.01 ... 3.00 mg/l :	0.01 mg/l		0.30 ... 100 µmol/l :	0.1 µmol/l
Range:	0.01 ... 3.00 mg/l :	0.01 mg/l					
	0.30 ... 100 µmol/l :	0.1 µmol/l					
Accuracy	±3 % of the measured value ±0.05 mg/l P _{Total}						
Measuring Principle	Photometric reference beam method after digestion						
Measuring Method	Molybdenum blue methode						
Coefficient of Variation for Method	< 1.5%						
Measuring Interval	10, 15, 20, 25, 30 or 60 min can be set (DIN EN measurement with 30 min digestion at approx. 248 °F/120 °C)						
Calibration	Fully automatic 2-point calibration						
Consumption	<table border="0"> <tr> <td>Reagents A, B, C, D:</td> <td>10/15/20/30/60 days with 10/15/20/30/60 min measuring intervals</td> </tr> <tr> <td>Standard, 1.5 l:</td> <td>70 days with 24 h calibration interval</td> </tr> <tr> <td>Cleaning solution, 1.5 l:</td> <td>60 days with 24 h cleaning interval</td> </tr> </table>	Reagents A, B, C, D:	10/15/20/30/60 days with 10/15/20/30/60 min measuring intervals	Standard, 1.5 l:	70 days with 24 h calibration interval	Cleaning solution, 1.5 l:	60 days with 24 h cleaning interval
Reagents A, B, C, D:	10/15/20/30/60 days with 10/15/20/30/60 min measuring intervals						
Standard, 1.5 l:	70 days with 24 h calibration interval						
Cleaning solution, 1.5 l:	60 days with 24 h cleaning interval						
Maintenance Interval	Every 3 months						
Warranty	2 years for defects of quality						

Sludge Level

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	SensoLyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Sludge Level																	●	

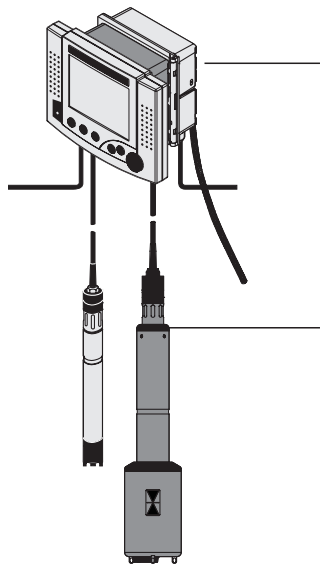
* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

Model	Description	Order No.
Sludge Level Sensors		
IFL 700 IQ	Digital ultrasonic sensor (60 mm) with automatic cleaning for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481 200Y
IFL 701 IQ	Digital ultrasonic sensor (60 mm) for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481 201Y
Accessories Sludge Level		
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
IFL-E	Deflector armature for IFL 700 IQ and IFL 701 IQ for application with surface skimmers	481 206Y
IFL-PM	Set for installation on a rail cross for IFL 700 IQ and IFL 701 IQ (EH/WT-D30, IFL-E please order separately)	481 208Y
IFL-RM	Rail mount for interface level sensors IFL 700 IQ and IFL 701 IQ in combination with deflector armature IFL-E. (EH/WT-D30, IFL-E please order separately)	481 207Y

*** Sensor variation with different cable length („-SO“): Additional costs depending on cable length.

Measuring Point Configuration

Sludge Level



IFL 700 IQ

IQ SENSORNET

Sludge level sensor can be used with system 2020 XT and System 282/284.

For data transfer in combination with moving surface scrapers using wireless transmission with the MIQ/WL PS SET is recommended

Order No. 480 025Y

Sludge Level Sensor

- IFL 700 IQ Order No. 481 200Y

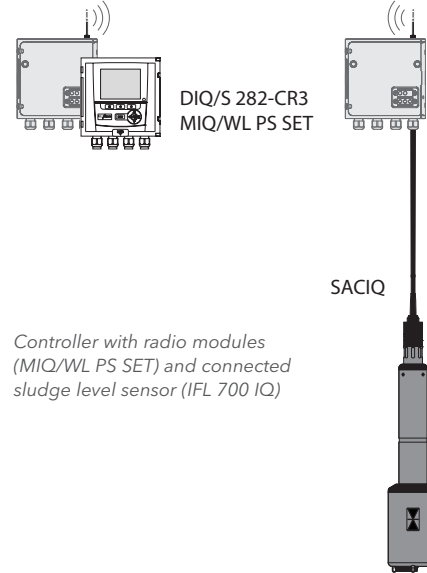
- IFL 701 IQ Order No. 481 201Y

required components per measuring place: dark shaded



Example 1

Sludge level measurement	Order No.
DIQ/S 282-CR3	472 110Y
1 x MIQ/WL PS SET	480 025Y
1 x SACIQ-7,0	472 042Y
IFL 700 IQ	481 200Y



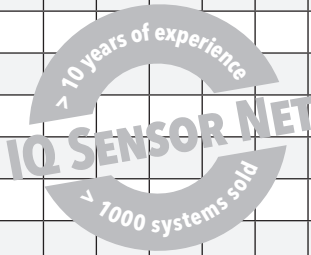
Controller with radio modules (MIQ/WL PS SET) and connected sludge level sensor (IFL 700 IQ)

Sludge Level

Technical Data IFL 700 IQ	
Measuring method	Ultrasound echo measurement
Measuring range	0.4 m - 15 m
Resolution	0.01 m
Accuracy	0.1 m
Signal filters	Yes
Flow speed	Max. 3 m/s
Physical dimensions	Length 442 mm (17.40 in.); max. diameter 105 mm (4.13 in.)
Weight	Approx. 3.6 kg (7 lb)
Immersion depth	min. 5 cm; max. 3 m
Protection class	Sensor with SACIQ cable connected: IP 68; 0.3 bar
Pressure resistance	The sensor with connected SACIQ cable complies with the requirements of article 3(3), 97/23/EU guideline.
Permitted pH range of medium	4 ... 12
Permitted temperature range	Medium: 0 °... +50 °C, Storage and transport: -5° ... +50°C
Materials	Shaft and baseplate: stainless steel 1.4571 Plug head and transition unit: POM Ultrasound unit: PVC-C Cleaning system: Grade 2 Titanium (shaft), Grivory
Equipment safety, Standards	EN 61010-1; UL 61010-1; CAN/CSA C22.2#61010-1
Electric data	Nominal voltage 24 VDC, provided via the IQ SensorNet system
Power consumption	5.5 W, operating with MIQ / WL PS: 3.0W; without a purification system (P 701 IQ): 3.0 W
Certifications	CE, cETL, ETL
Usable System	IQ SENSORNET System 2020 XT and System 282/284

IQ SENSORNET

Parameter	Sensors																	
	TriOxmatic® 700 IQ	FDO® 700/701 IQ	Sensolyt® 700 IQ	TetraCon® 700 IQ	VisoTurb® 700 IQ	ViSolid® 700 IQ	Ammolyt® 700 IQ	Nitralyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ	NiCaVis® 705 IQ	NiCaVis® 701/705 IQ NI	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IPL 700 IQ	P700 IQ
Usable with Systems 2020 XT and 282/284	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	8.0*	5.5*	0.5
Parameter																		
Temperature	●	●	●	●			●	●	●									
Dissolved Oxygen (electrochemical)	●																	
Dissolved Oxygen (optical)		●																
pH			●															
ORP			●															
Conductivity				●														
Salinity				●														
TDS				●														
Turbidity (optical)					●													
TSS (optical)						●				●		●						
Sludge Level																	●	
Ammonium (ion-selective)							●		●									
Nitrate (ion-selective)								●	●									
Nitrate (optical/spectral)										●	●		●	●		●†		
Nitrite (optical/spectral)											●			●				
Potassium (ion-selective)							●		●									
Chloride (ion-selective)								●	●									
COD (optical/spectral)												●	●	●				
BOD (optical/spectral)												●	●	●				
TOC (optical/spectral)												●	●	●				
DOC (optical/spectral)												●	●	●				
SAC (optical/spectral)												●	●	●	●			
UVT (optical/spectral)												●	●	●	●			
Orthophosphate (optical/wet chemical)																		●



* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

† NO₂-N is included in the measurement result

Model	Description	Order No.
IQ Sensors for Systems 282/284 and 2020 XT, Connection cables		
Dissolved Oxygen		
TriOxmatic® 700 IQ	Universal digital D.O. sensor for monitoring/controlling O ₂ input in wastewater treatment plants for use with IQ SENSORNET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 640Y
TriOxmatic® 700 IQ SW	Universal digital D.O. sensor for monitoring/controlling the O ₂ input, in sea water design, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1 x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 641Y
TriOxmatic® 701 IQ	Fast response time digital D.O. sensor for use in wastewater treatment plants, e.g. denitrification, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 644Y
TriOxmatic® 702 IQ	Digital D.O. sensor for trace level measurements in the ppb range, e.g. ultrapure water/boiler feed water, for use with IQ SENSORNET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201 646Y
FDO 700 IQ	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O ₂ input in wastewater treatment plants, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 700, without connection cable (SACIQ order separately)	201 650Y
FDO® 700 IQ SW	Digital calibration free optical D.O. sensor (universal use). Optimized for measuring and controlling the O ₂ input in seawater applications, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 700 and protective cap MSK FDO®, without connection cable (SACIQ order separately).	201 652Y
FDO 701 IQ SW	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for measuring/controlling the O ₂ input in seawater applications, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 701 and protective cap MSK FDO®, without connection cable (SACIQ order separately)	201 653Y
FDO 701 IQ	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O ₂ input in waste water treatment plants, for use with IQ SENSORNET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 701, without connection cable (SACIQ order separately).	201 660Y
pH/ORP		
SensoLyt® SEA	pH combination electrode especially suited for measurements in heavily polluted wastewater, with armouring for use in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109 115Y
SensoLyt® ECA	pH combination electrode esp. suited for normally polluted wastewater (e.g. municipal wastewater) with armouring for use in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109 117Y
SensoLyt® SEA-HP	pH combination electrode with optimized armouring for use under high pressure/temperature conditions, for installation in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 4 ... 12 pH	109 118Y
SensoLyt® DWA	pH combination electrode especially for drinking water applications, for installation in sensors of SensoLyt® 650/690/700 (IQ) series. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109 119Y
SensoLyt® PtA	ORP combination electrode especially suited for measurements in heavily polluted wastewater, for installation in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range - 2000 ... + 2000 mV	109 125Y
SensoLyt® 700 IQ	Robust digital pH/ORP sensor for pH/ORP electrodes SensoLyt® SEA/DWA/ECA/PtA for use with the IQ SENSORNET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109 170Y
SensoLyt® 700 IQ SW	Robust digital pH/ORP sensor for SensoLyt® SEA/ DWA/ECA/PtA pH/ORP electrodes, in sea water design, for use with the IQ SENSORNET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109 171Y
SensoLyt® 700 IQ/SET	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including pH electrode (SensoLyt® SEA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109 173Y
SensoLyt® 700 IQ/SET1	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including ORP electrode (SensoLyt® PtA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109 174Y
Conductivity		
TetraCon® 700 IQ	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the IQ SENSORNET System. With integrated temperature sensor, without cable (Please order SACIQ separately)	302 500Y

Model	Description	Order No.
TetraCon® 700 IQ SW	Digital 4 electrode conductivity cell, in seawater design, suited for heavily polluted water, for use with the IQ SENSORNET. With integrated temperature sensor, without cable (Please order SACIQ separately)	302 501Y
Turbidity/Suspended Solids		
VisoTurb® 700 IQ	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable SACIQ separately.	600 010Y
VisoTurb® 700 IQ SW	Digital turbidity sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable separately.	600 011Y
ViSolid® 700 IQ	Digital suspended solids sensor for water/wastewater/sludge (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable SACIQ separately.	600 012Y
ViSolid® 700 IQ SW	Digital suspended solids sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSORNET system. Please order connection cable separately.	600 013Y
Combination sensor for ammonium and nitrate (ISE)		
VARiON®Plus 700 IQ	Robust digital sensor for the ion-selective measurement (in-situ) of ammonium and nitrate, for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ with 4 blind plugs, protective device and calibration vessel. Please order electrodes separately.	107 040Y
VARiON®Plus A comp SET NH4	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, ammonium electrode VARiON®Plus NH4 and compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107 060Y
VARiON®Plus N comp SET NO3	Robust digital Sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, nitrate electrode VARiON®Plus NO3 and compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107 062Y
VARiON®Plus AN/A comp SET NH4 & NO3	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107 066Y
VARiON®Plus AN/N comp SET NH4 & NO3	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSORNET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107 068Y
Ammonium (ISE)		
AmmoLyt® Plus 700 IQ	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NH4, VARiON®Plus K and SACIQ connection cable (Please order separately).	107 070Y
AmmoLyt® Plus SET	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref and VARiON®Plus NH4 electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: electrode VARiON®Plus K und SACIQ connection cable. (Please order separately)	107 071Y
AmmoLyt® Plus SET/Comp	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref, VARiON®Plus NH4 and VARiON®Plus K electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107 072Y
Nitrate (ISE)		
NitraLyt®Plus 700 IQ	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NO3, VARiON®Plus Cl and SACIQ connection cable (Please order separately).	107 080Y
NitraLyt®Plus SET	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref and VARiON®Plus NO3 electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrode VARiON®Plus Cl and SACIQ connection cable (Please order separately).	107 081Y
NitraLyt®Plus SET/Comp	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSORNET system, delivered with VARiON® Ref, VARiON®Plus NO3 and VARiON®Plus Cl electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107 082Y

Model	Description	Order No.
Nitrate/Nitrite (UV-VIS/UV)		
NitraVis 701 IQ	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 044Y
NitraVis 701 IQ TS	Spectral nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for in-situ measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 045Y
NitraVis 705 IQ	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 046Y
NitraVis 705 IQ TS	Optical nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 047Y
NiCaVis 705 IQ	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 052Y
NiCaVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 054Y
NiCaVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 055Y
NitraVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 056Y
NitraVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 057Y
NOx (optical)		
UV 701 IQ NOx	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 034Y
UV 705 IQ NOx	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 035Y
Carbon (UV-VIS/UV)		
CarboVis 701 IQ	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/BNR part of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 048Y
CarboVis 701 IQ TS	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/aeration part of municipal wastewater treatment plants with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 049Y
CarboVis 705 IQ	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 050Y
CarboVis 705 IQ TS	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 051Y
NiCaVis 705 IQ	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 052Y

Model	Description	Order No.
NiCaVis 701 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 054Y
NiCaVis 705 IQ NI	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately)	481 055Y
SAC/UVT (optical)		
UV 701 IQ SAC	Optical SAC and UVT sensor (254 nm), for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 036Y
UV 705 IQ SAC	Optical SAC and UVT sensor (254 nm), for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481 038Y
Sludge Level		
IFL 700 IQ	Digital ultrasonic sensor (60 mm) with automatic cleaning for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481 200Y
IFL 701 IQ	Digital ultrasonic sensor (60 mm) for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481 201Y
Phosphate		
P700 IQ-I115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, indoor, 115V. Scope of delivery: Indoor Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-000Y
P700 IQ-O115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET outdoor, 115V. Scope of delivery: Onsite Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-001Y
P700 IQ-PI115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, indoor, 115V. Scope of delivery: Indoor Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-010Y
P700 IQ-PO115	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, outdoor, 115V: Scope of delivery: Onsite Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-011Y
P700 IQ-I230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, indoor, 230V. Scope of delivery: Indoor Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-100Y
P700 IQ-O230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET, outdoor, 230V. Scope of delivery: Onsite Orthophosphate analyzer, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-101Y
P700 IQ-PI230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, indoor, 230V. Scope of delivery: Indoor Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-110Y
P700 IQ-PO230	Orthophosphate Analyzer P700 IQ for the IQ SENSORNET with integrated permeate pump for filtration, outdoor, 230V. Scope of delivery: Onsite Orthophosphate analyzer with integrated permeate pump, without power cable (Controller, connection cable SNCIQ: please order separately)	8P-111Y
Sensor Connection Cable		
SACIQ-1,5	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 1.5 m (4.9 ft)	480 040Y
SACIQ-50	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft)	480 041VY
SACIQ-7,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 7 m (23 ft)	480 042Y
SACIQ-15,0	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 15 m (49 ft)	480 044Y
SACIQ-20,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480 045Y
SACIQ-50,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480 060Y
SACIQ-50 SW	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480 064VY
SACIQ-Plug	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480 065Y
SACIQ-25,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480 066Y

*** Sensor variation with different cable length (-,SO"): Additional costs depending on cable length.

Systems 282/284 and 2020 XT				
	System 282/284		System 2020 XT	
Max. Number of Sensors	4*		20*	
Output Signals	ANALOG:	DIGITAL:	ANALOG:	DIGITAL:
	Analog outputs (0/4 - 20 mA), Relays	• RS 485	Analog outputs (0/4 - 20 mA), Relays	• RS 485
		FIELDBUSES: • Profibus DP • Modbus RTU • EtherNet/IP™ • Modbus TCP • PROFINET		FIELDBUSES: • Profibus DP • Modbus RTU • EtherNet/IP™ • Modbus TCP • PROFINET
(digital and fieldbus parallel to analog possible)				
Knowledge of Special Automation Technology Required	Basically no, in PROFIBUS/Modbus systems yes		Basically no, in PROFIBUS/Modbus systems yes	
Additional Options				
Additional Displays	No		Yes	
Redundant Controller	No		Yes	
Datalogger	Yes		Yes	
Modem-capable Interface (Fixed Line Telephone)	No		Yes Alarms and measured values - MIQ/TC 2020 XT: via SMS - MIQ/MC3 family: via e-mail and web browse	
Radio connection	Yes		Yes	

* The sensors VARIION®Plus 700 IQ, NitraVis 701/705 IQ TS, CarboVis 701/705 IQ (TS), NiCaVis 705 IQ, NiCaVis 701/705 IQ NI need at least 2 sensor spaces. The sensors with fixed cable connection cannot be connected here.

The IQ SENSORNet system consists of a variable number of system components with different functions.

The individual components and their primary functions are:		
Controller and terminal	Controller	Controls all communication within the system
	Terminal	Display of measurements, operation and system configuration ("Human Machine Interface")
Modules	Power supply modules	Power supply for system components
	Combined output module	Transmission of measured data or message/alarm functions (mA/relays)
	Branching modules	System branching and sensor connection
Sensors	IQ sensors and connection modules for passive sensors	Measurement of parameters
Cables	Sensor connection cable	Cables for connecting sensors to modules
	Module connection cable	Cables for connecting modules to remote measuring points
	Module connection cable, ground installation	Cables for connecting modules to remote measuring points, specifically for the ground installation.

Systems in detail

Modules	MIQ/PS	MIQ/24V	MIQ/C6	MIQ/R6	MIQ/CR3	MIQ/IC2	MIQ/3-MOD	MIQ/3-PR	MIQ/3B	MIQ/JBR	MIQ/WL PS (SET)	MIQ/TC2020XT	MIQ/MC3	MIQ/MC3-MOD	MIQ/MC3-PR	Cleaning Air Box - 230 VAC	Cleaning Air Box - 115 VAC	MIQ/CHV PLUS
Usable with System 2020 XT	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Usable with System 282/284	●	●	●	●	●	●			●		●					●	●	●
Available IQSN connectors	3	3	2	2	2	2	3	3	4	4	3	×	2.5	3	3	×	×	2.5
Electrical current	*	*	3.0	1.5	3.0	0.2	3.0	3.0	0.0	0.2	0.6	3.0	2.5	3.0	3.0	**	**	2.5
Module features																		
Power supply																		
100...240 V AC	●																	
24 V AC/DC		●																
Analog outputs/relays																		
6 x 0/4...20 mA			●															
6 x relays				●														
3 x 0/4...20 mA 3 x relays					●													
Analog inputs																		
2 x 0/4...20 mA						●												
Interfaces																		
MODBUS							●							●				
PROFIBUS								●							●			
USB							x	●	x	●		●	●	●	●			
Ethernet/LAN													●	●	●			
Intra-system connectivity																		
4 available IQSN connectors									●									
4 available IQSN connectors, including signal amplification for large distances										●								
Radio transmission											●							
Controller																		
Controller/Terminal (with Display)												●						
Controller in standard IQ module without display													●	●	●			
Compensation																		
Air-pressure compensation for D.O. measurement							●	●					●	●	●			
Compressed air cleaning																		
Air compressor 230 VAC																	●	
Air compressor 115 VAC																		●
Valve for automatic cleaning																		●

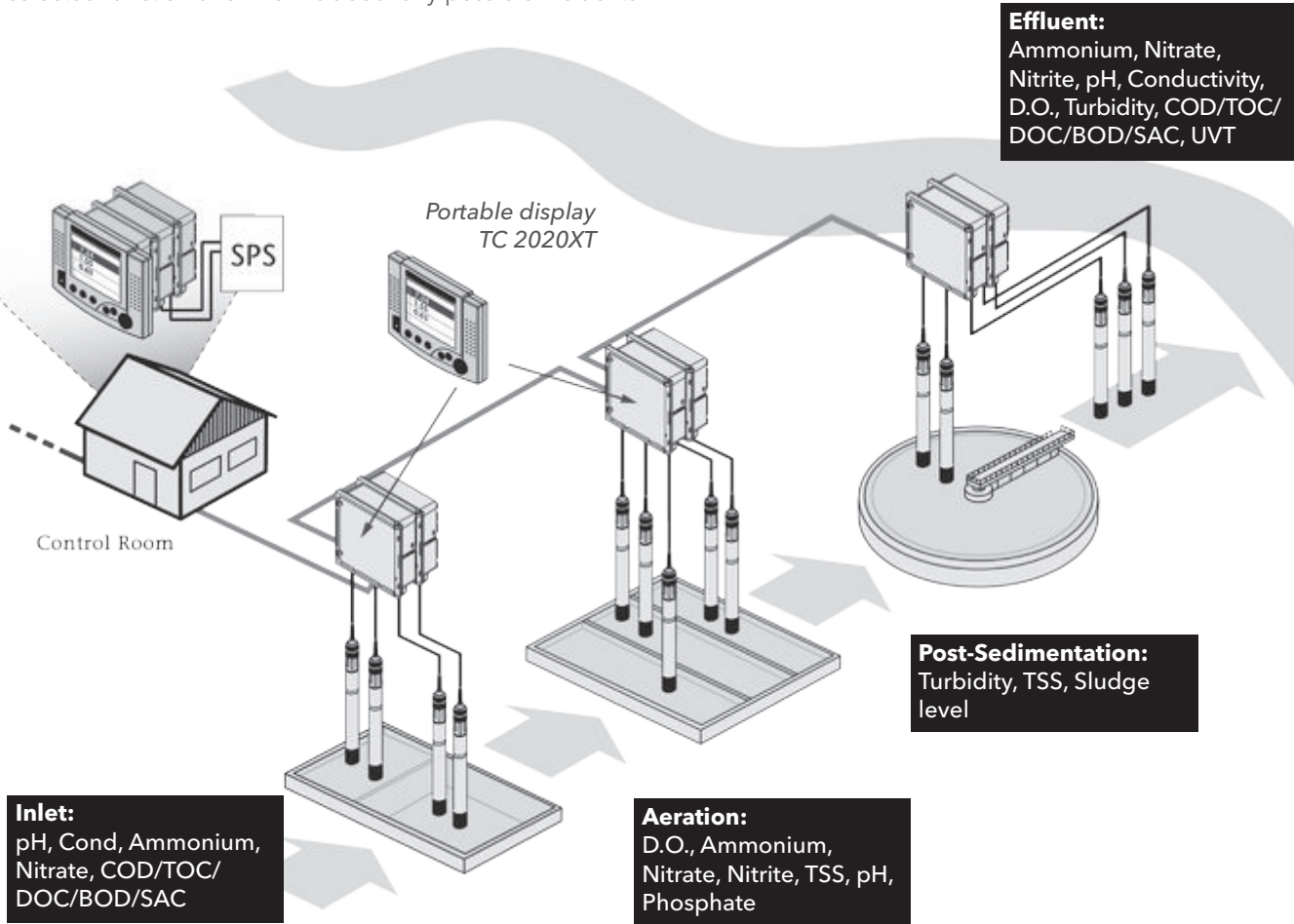
* Power supply 18 W
 ** Integrated power supply

x USB-interface only for software update

The System 2020 XT

System architecture 2020 XT

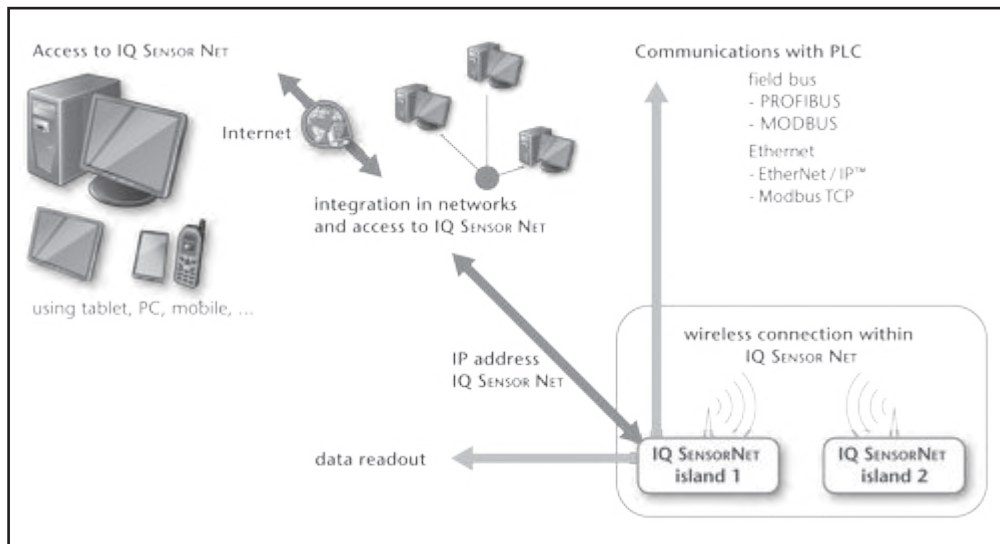
The terminal/controller **MIQ/TC 2020 XT** can be operated as either controller (permanently installed with the system) as also as mobile terminal. This function can be configured with the software by each user. The status LED indicates the selected function and informs about any possible incidents.



IQ SENSORNET

Digital communication with the IQ Net

- MIQ/3-PR modul IQ**
with PROFIBUS-DP connection
 - MIQ/3-MOD modul IQ**
with MODBUS RTU/RS 485 connection
 - MIQ/WL PS**
for wireless connection and linking with the IQ SENSORNET System
- Additional IQ SENSORNET islands possible.



Model		Description	Order No.
System 2020 XT			
Terminal / Controller			
MIQ/TC 2020 XT		Module IQ Terminal/Controller, configurable as controller (permanently installed) or as terminal with redundant controller function for system 2020 XT, with USB interface, for coupling to any IQ SENSORNET module	470 000Y
MIQ/TC 2020 XT-H3		Multi-parameter measuring converter, for connecting up to 20 IQ sensors. Scope of supply: MIQ/TC 2020 XT Terminal/Controller, MIQ/CR3 with 3 analog outputs (0/4-20 mA) and 3 relays, MIQ/PS wide-range power supply	470 016Y
MIQ/TC 2020 XT-H3 C6		Multi-parameter measuring converter, for connecting up to 20 IQ sensors. Scope of supply: MIQ/TC 2020 XT Terminal/Controller, MIQ/C6 with 6 analog outputs (0/4-20 mA), MIQ/PS wide-range power supply	470 017Y
Power Supply			
MIQ/PS		Module IQ/Power Supply, wide-range power supply for system 2020 XT and 282/284, power output max. 18 W, 3 idle IQ SENSORNET connections	480 004Y
MIQ/24V		Module IQ/24V, power supply for 24 VAC / 24 VDC input voltage, for system 2020 XT and 282/284, power output max. 18 W, 3 idle IQ SENSORNET connections	480 006Y
Outputs, Inputs and Communication			
MIQ/3-MOD	<i>New</i>	Module IQ with MODBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 XT) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 026Y
MIQ/3-PR	<i>New</i>	Module IQ with PROFIBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 XT) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 027Y
MIQ/R6		Module IQ/Relais 6, for system 2020 XT and 282/284, with 6 relays (240 VAC/2 A)	480 013Y
MIQ/CR3		Module IQ/Current Relais 3, for System 2020 XT and 282/284, with 3 analog (0/4-20 mA) and 3 relay outputs (250 VAC/5 A)	480 014Y
MIQ/C6		Module IQ/Current 6, for system 2020 XT and 282/284, with 6 (0) 4 - 20 mA outputs	480 015Y
MIQ/IC2		Module IQ/input current with 2 (0) 4 - 20 mA inputs, for system 2020 XT and 282/284	480 016Y
System Extension			
MIQ/JB		Module IQ/Junction Box for system 2020 XT and 282/284, 4 idle IQ SENSORNET connections	480 008Y
MIQ/JBR		Module IQ/Junction Box Repeater for system 2020 XT, with integrated bidirectional signal amplifier (repeater)	480 010Y
MIQ/WL PS		Module IQ Wireless, for cable free communication within the IQ SENSORNET System 282/284 and System 2020. Extension module for starter set MIQ/WL PS SET (480025).	480 023Y
MIQ/WL PS SET		Modul IQ/Wireless, for cable free communication within the IQ SENSORNET System 282/284 and System 2020. Starterset consists of 1 Master and 1 Slave. Extension with MIQ/WL PS (480023) possible.	480 025Y
Controller (no Terminal)			
MIQ/MC3	<i>New</i>	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, in module housing, with automatic air pressure compensation, USB interface (IP66), Ethernet RJ45 interface (IP 66)	471 020Y
MIQ/MC3-MOD	<i>New</i>	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, with MODBUS connection, automatic air pressure compensation as well as USB interface (IP 66) and Ethernet interface (IP 66) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 022Y
MIQ/MC3-PR	<i>New</i>	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, with PROFIBUS connection, automatic air pressure compensation as well as USB interface (IP 66) and Ethernet interface (IP 66) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 023Y
Others			
MIQ/CHV PLUS		Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y
EW/1		Set of 4 cable glands M20 required for cable sheaths with an outside diameter of more than 10 mm.	480 051Y
ADA/D-SUB		D-SUB connection for Profibus and Modbus connections for the IQ 2020 and 282/284 systems.	902 888Y
Connection Cables and Mounting Material for Systems 2020 XT and 282/284			
SD/K 170		Sun shield for outdoor installation of junction boxes (e.g. junction box KI/pH 170) or an IQ SENSORNET module	109 284Y
MR/SD 170		Mounting kit for attaching sun shields to pipes	109 286Y
SSH/IQ		Sun shield for mounting of IQ SENSORNET modules and series 171/170 monitors to mounting stands	109 295Y
SNCIQ		Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Please indicate cable length in m when ordering (unit: m)	480 046Y
SNCIQ/UG		Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system, esp. for use in underground. Please indicate cable length in m when ordering (unit: m)	480 047Y
PMS/IQ		Kit for panel mounting of IQ SENSORNET modules	480 048Y
THS/IQ		Kit for top hat rail mounting of IQ SENSORNET modules	480 050Y
WMS/IQ		Kit for wall mounting of IQ SENSORNET modules	480 052Y



Model	Description	Order No.
SNCIQ-100	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 100 m (109 yds)	480 068Y
SNCIQ-200	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 200 m (119 yds)	480 069Y
SNCIQ-250	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 250 m (273 yds)	480 070Y
SNCIQ-500	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 500 m (547 yds).	480 072Y
SNCIQ/UG-250	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system, esp. for use in underground. Cable reel with 250 m (273 yds).	480 075Y
MIQ/TM/SET	Adapter Set USB/RS232 for MIQ/TC 2020 XT to realize remote connections.	902 887Y

General Technical Data System 2020 XT		
System		
Certifications	ETL, cETL (conforms with relevant UL and Canadian standards), CE	
Electromagnetic Compatibility	EN 61326-1, Class B; FCC Class A	
Integrated Lightning Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system, implemented in each component	
Connection Medium Cable	IQ SENSORNET cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm ² ; Filler cord for easy connection of shield: 0.75 mm ² ; pressure resistant to 10 bar	
Connection Characteristics	Power supply and data transmission on these wires; resistant to polarity reversal with respect to switched shield and inner conductor (no damage); comprehensive EMC shield control; cable topology within IQ SensorNet system as required, e.g. in the form of a line, tree, star, multiple star Total cable length: max. 1.000 m/1094 yds (without signal amplifying), with signal amplifying module MIQ/JBR additional 1.000 m/1094 yds	
Connection Medium Radio	Radio transmission Class 1 with a range of 100 m/109 yds (max. 300 m/328 yds)	
Connection Characteristics	Data transmission, separate power supply necessary for each island	
Controller	Terminal/Controller MIQ/TC 2020 XT	Controller MIQ/MC3
MIQ Module Coupling at Rear	Combined mechanical and electrical connection, for rapid coupling to MIQ modules	
USB interface	USB-A (host)	USB-A
Ethernet port	-	RJ45 socket or LSA terminal strip can be used
Display	Graphic display; resolution: 320 x 240 pixel; visible area: 4.49 x 3.39 in. (114 x 86 mm), black/white, backlit	
Control Functions/Function Keys	5 operating keys: 3 master keys for functions: Measurement (M), calibration (C), set/system settings (S), 2 keys for: confirmation/switching menu O.K. (OK), Escape (ESC) 4-directional button for rapid selection of software functions and input of alphanumeric values	
Datalogger	MIQ/TC 2020 XT: Data memory for up to 525,600 data sets; MIQ/MC 43.000 data sets	
Electric Supply	Directly via the IQ SENSORNET when coupled to MIQ module	
Ambient Conditions	Operating temperature: -4 °F ... 131 °F (-20 °C ... +55 °C) Storage temperature: -13 °F ... 149 °F (-25 °C ... +65 °C)	
Housing Material	ASA (Acrylonitrile-Styrene-Acryloesterpolymer)	
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM..	
Dimensions (W x H x D)	8.27 x 6.69 x 1.57 in. (210 x 170 x 40 mm)	5.67 x 6.81 x 2.05 in. (144 x 173 x 52 mm)
Weight	Approx. 1.98 pounds (0.9 kg)	
Warranty	3 years for defects of quality	
Modules		
MIQ Module Coupling at Front	Combined mechanical and electrical connection for rapid docking and removal of the MIQ/T2020 (PLUS) Terminal/Controller (configured as Terminal) and for docking additional modules	
MIQ Module Coupling at Rear	Combined mechanical and electrical connection for docking additional modules, a total of 3 modules as a stack mounted unit	
Cable Feeds	4 screw cable glands M 16 x 1.5	
Terminal Connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm ² Terminal area for flexible conductors: 0.2 ... 2.5 mm ² accessible by opening cover	
IQ SENSORNET Terminal Connections	Terminal connections for the IQ SENSORNET are available on each module and can be used as required: - for connecting sensors - as an input/output or for looping through/branching of the IQ SENSORNET cable	
Other Functions	Two LEDs, yellow and red, for monitoring the operating voltage of the IQ SENSORNET; IQ SENSORNET connection, resistant to reversed polarity; Integrated local identity function; Integrated switchable terminal resistor (SN terminator)	
Electric Supply	Directly via the IQ SENSORNET	
Ambient Conditions	Operating temperature: -4 ... 131 °F (-20 ... +55 °C); Storage temperature: -13 ... 149 °F (-25 ... +65 °C)	
Housing Material	PC - 20 % GF (polycarbonate with 20 % fiberglass)	
Protection Rating	IP 66 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM.	
Dimensions (W x H x D)	5.67 x 5.67 x 2.05 in. (144 x 144 x 52 mm)	
Weight	Approx. 1.1 pounds (0.5 kg)	
Warranty	3 years for defects of quality	
Sensors		
Mechanical Connections for Accessories	Connection slot; Connection screw thread G 1"	
IQ Sensor Connection Cable	Combined mechanical and electrical connection for rapid attachment and exchange of sensors. Consists of jack plug and pressure-resistant screw connection. Cable lengths: 1.64 - 7.66 - 16.40 yds (1.5 - 7.0 - 15.0 m)/ 21.87 - 54.68 - 109.36 yds (20, 25, 50, 75 - 100 m) in sea water design available. Storage temperature: -13 °F ... 149 °F (-25 °C ... +65 °C) Operating temperature: -4 °F ... +131 °F (-20 °C ... +55 °C)	



System components and functions			
Terminal/Controller			
	Model	Function	Order No.
Central Control Unit	TC 2020 XT (Operation in MODBUS: terminal/controller)*	Central terminal/controller unit: is required to be installed once at any point, remains in the system, cannot be removed. Operation mode is shown through LED.	470 000Y
	MIQ/TC 2020 XT-H3	Multi-parameter measuring converter, consisting of the components MIQ/TC 2020 XT + MIQ/CR3 + MIQ/PS, 100 - 240 VAC main voltage, 3 analog outputs (0/4-20 mA) and 3 relay outputs, up to 20 free selectable IQ sensors can be connected	470 016Y
	MIQ/TC 2020 XT-H3 C6	Multi-parameter measuring converter, consisting of the components MIQ/TC 2020 XT + MIQ/C6 + MIQ/PS, 100 - 240 VAC main voltage, 6 analog outputs (0/4-20 mA) up to 20 free selectable IQ sensors can be connected	470 017Y
Controller			
	MIQ/MC3	Module IQ/Micro Controller; is required to be installed once at any point; with fully automatic air-pressure compensation and USB + LAN interface	471 020Y
	MIQ/MC3-MOD	Module IQ/Micro Controller with fully automatic air-pressure compensation and MODBUS RTU / RS 485 connection and USB + LAN interface	471 022Y
	MIQ/MC3-PR	Module IQ/Micro Controller with fully automatic air-pressure compensation and PROFIBUS-DP / RS 485 connection and USB + LAN interface	471 023Y
MIQ Modules			
	Model	Function	Order No.
Power Supply	MIQ/PS for 100 - 240 VAC	Depending on the power consumption up to 6 modules can be installed in the system.	480 004Y
	MIQ/24V for 24 VAC/24 VDC		480 006Y
Output Modules (analog)	MIQ/CR3 with 3 analog (0/4-20 mA) and 3 relay outputs	With any combination up to max. 48 output channels (sum of current outputs and relays)	480 014Y
	MIQ/C6 with 6 analog outputs (0/4-20 mA)		480 015Y
	MIQ/R6 with 6 relay outputs		480 013Y
Output Modules (digital)	MIQ/3-MOD	Module IQ with fully automatic air-pressure compensation and MODBUS RTU/RS 485 connection	471 026Y
	MIQ/3-PR	Module IQ with fully automatic air-pressure compensation and PROFIBUS-DP/RS 485 connection	471 027Y
Magnetic valve module	MIQ/CHV PLUS	Magnetic valve module for automatic controlled cleaning via compressed air	480 018Y
Linking modules	MIQ/JB	MIQ/JB with 4 connections (for IQ Net or IQ sensors)	480 008Y
	MIQ/JBR	MIQ/JBR, same as MIQ/JB additionally with amplifier signal for long cable distances (>1 km total length)	480 010Y
Connecting module Power input	MIQ/IC2	MIQ/IC2 with 2 inputs for 0/4-20 mA signals Enables the connection of separate measuring transmitters and analyzers to the IQ Net	480 016Y
Radio communication module	MIQ/WL PS	For wireless connection and linking within the IQ SENSORNET system	480 023Y (480 025Y)

*Via the software adjustable by user

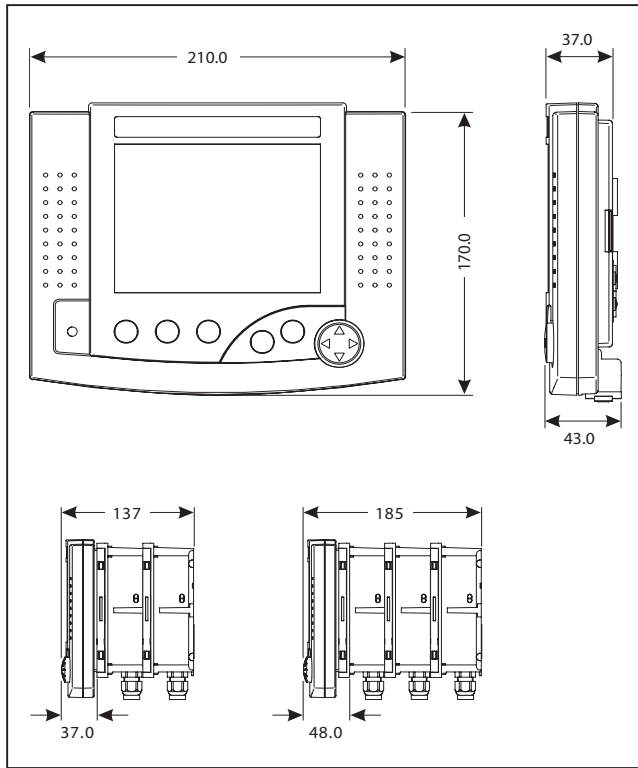
Configuration and Performance Data				
IQ Sensors				
Type	Description		System 2020 XT Number min/max	Power Consumption/ Output / W
SensoLyt® 700 IQ (SW)	pH/ORP assembly		1/20***	⇒ 0.2
TriOxmatic® 700 IQ (SW)	D.O. sensor			⇒ 0.2
TriOxmatic® 701 IQ	D.O. sensor			⇒ 0.2
TriOxmatic® 702 IQ	D.O. sensor			⇒ 0.2
FDO 700 IQ (SW)	Optical D.O. sensor			⇒ 0.7
TetraCon® 700 IQ (SW)	Conductivity sensor			⇒ 0.2
VisoTurb® 700 IQ (SW)	Turbidity sensor			⇒ 1.5
ViSolid® 700 IQ (SW)	Suspended solids sensor			⇒ 1.5
VARIOn®Plus 700 IQ	Double sensor Ammonium and Nitrate (ISE)			⇒ 0.2
AmmoLyt®Plus 700 IQ	Ammonium assembly (ISE)			⇒ 0.2
NitraLyt®Plus 700 IQ	Nitrate assembly (ISE)			⇒ 0.2
NitraVis 701/705 IQ (TS)	Spectral Nitrate sensor			⇒ 8.0
NitraVis 701/705 IQ NI	Spectral sensor for the measurement of Nitrate and Nitrite			⇒ 8.0
CarboVis 701/705 IQ (TS)	Spectral sensor for the measurement of COD/TOC/DOC/BOD/SAC/UVT ₂₅₄			⇒ 8.0
NiCaVis 705 IQ	Spectral sensor for the measurement of Nitrate and COD/TOC/DOC/BOD/SAC/UVT ₂₅₄			⇒ 8.0
NiCaVis 701/705 IQ NI	Spectral sensor for the measurement of Nitrate, Nitrite and COD/TOC/DOC/BOD/SAC/UVT ₂₅₄			⇒ 8.0
UV 701/705 IQ SAC	Optical sensor for the measurement of SAC and UVT ₂₅₄			⇒ 8.0
UV 701/705 IQ NOx	Optical sensor for the measurement of NOx			⇒ 8.0
P700 IQ	Orthophosphate analyzer			⇒ 0.5
IFL 700 IQ	Sludge level sensor with integrated scraper			⇒ 5.5
IFL 701 IQ	Sludge level sensor without scraper		⇒ 3.0	
Output modules analog			with numbers ② of IQ SENSORNET terminal connections	
			In total there are 48 output channels/ system available	
	Each mA-output, each relays with one module is considered as 1 channel.		Number of occupied output channels	
MIQ/CR3	Module IQ / current relay 3 with 3 analog outputs and 3 relay outputs each	②	6	⇒ 3.0
MIQ/C6	Module IQ / current 6 with 6 analog outputs	②	6	⇒ 3.0
MIQ/R6	Module IQ/ Relais 6 with 6 relay outputs	②	6	⇒ 1.5
MIQ/CHV PLUS	Module IQ/ Cleaning Head Valve for automatically controlled cleaning	②	1	⇒ 2.5
Output modules digital				
MIQ/3-PR	Module IQ with PROFIBUS-DP connection	②		⇒ 3.0
MIQ/3-MOD	Module IQ with MODBUS RTU / RS 485 connection	②		⇒ 3.0
MIQ/WL PS (SET)	Modules IQ for wireless connection within the IQ SENSORNET system	③	1 / 10	⇒ 0.6
Power input connection module mA				
MIQ/IC2**	IQ / input current 2, module with 2 inputs for 0 / 4 - 20 mA signals	②	each occupied current input is counted as IQ sensor	⇒ 0.2*
MIQ/JB	IQ / junction box module	④	0/25	⇒ 0.0 (non-active module)
MIQ/JBR	IQ / junction box repeater module	④	0/2	⇒ 0.2
Terminal-Controller				
MIQ/TC 2020 XT	Terminal / controller for system 2020 XT		In total 3 units per system possible, whereby 1 is installed constantly to the station (terminal / controller function) and 2 are removable or replaceable (terminal function)	⇒ 3.0
Controller				
MIQ/MC3	Module IQ/Micro Controller	②		⇒ 2.5
MIQ/MC3-PR	Module IQ/Micro Controller with PROFIBUS-DP connection	②		⇒ 3.0
MIQ/MC3-MOD	Module IQ/Micro Controller with MODBUS RTU / RS-485 connection	②		⇒ 3.0
Power supply modules				
MIQ/PS	IQ / power supply module for input power with wide range power supply unit for 100 - 240 VAC input voltage	③	1/6	18 ⇒
MIQ/24V	IQ / 24 V module for input power with 24 VAC or 24 VDC input voltage	③		18 ⇒

Attention: Please consider power consumption of SNCIQ cable: 1 W per 100 m/109 yds (for cable lengths above 400 m/437 yds)

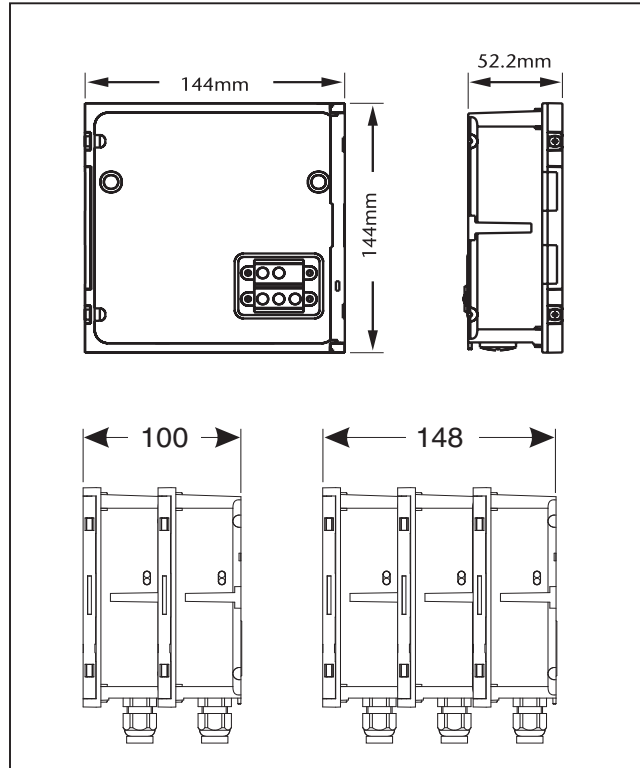
* further power consumption by external devices is possible. ** each occupied current input is counted as IQ sensor

Dimension Terminal/Controller Components for System 2020 XT

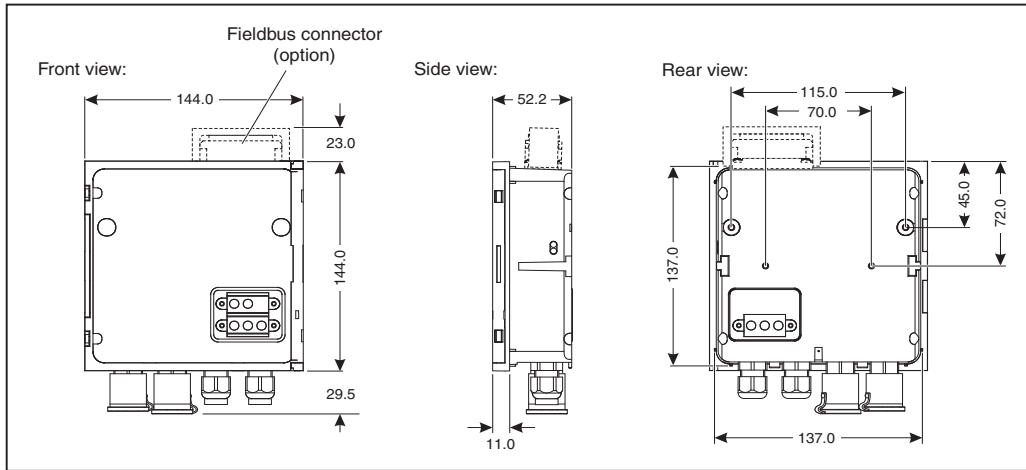
MIQ/TC 2020 XT



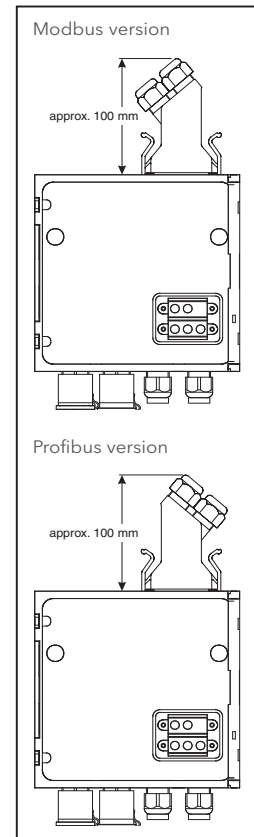
MIQ Modules



MIQ/MC3

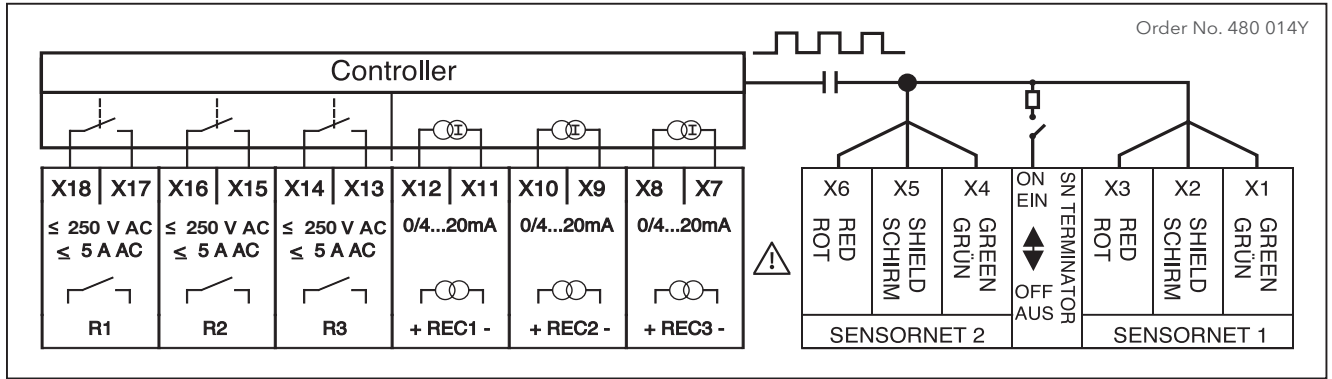


Connection variants

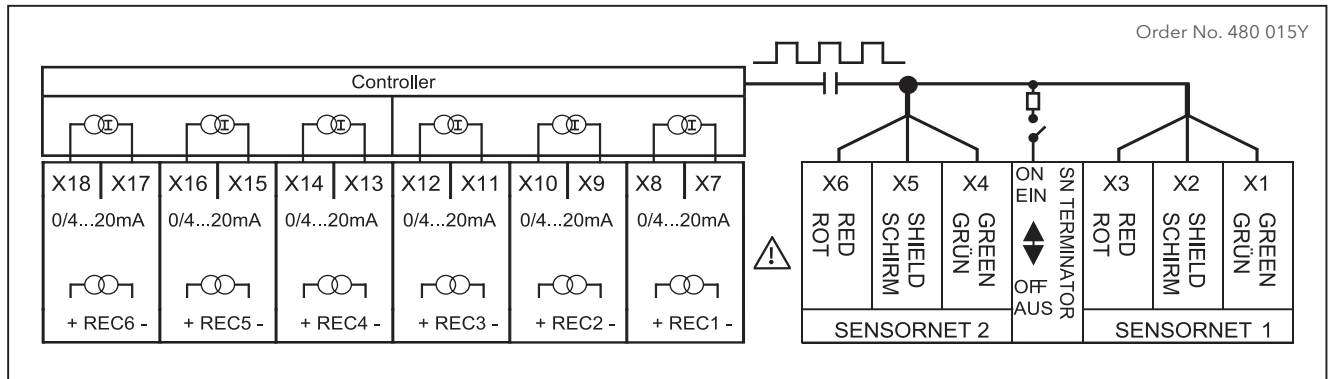


Electrical Connections MIQ/Modules for System 2020 XT

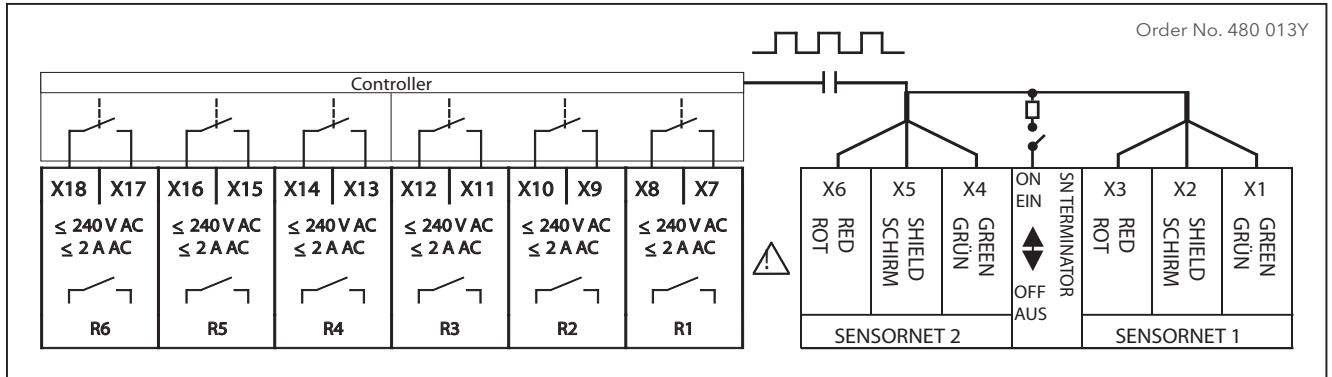
MIQ/CR3



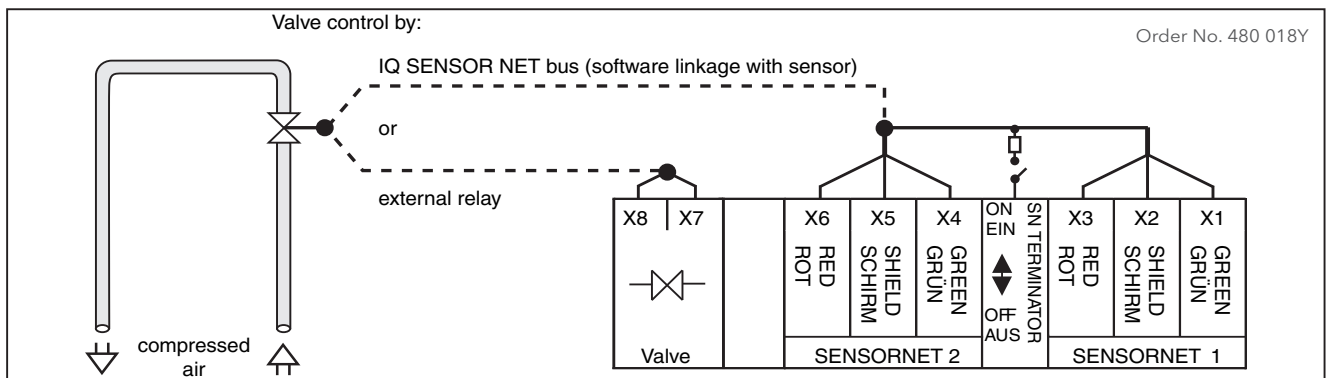
MIQ/C6



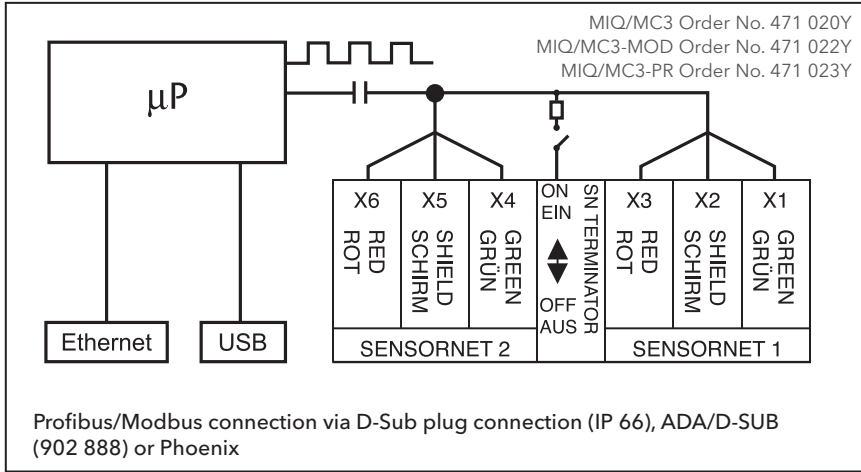
MIQ/R6



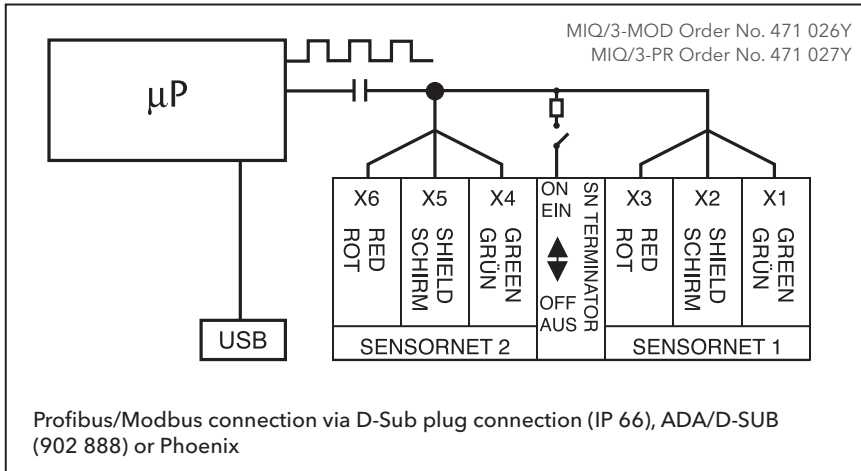
MIQ/CHV PLUS



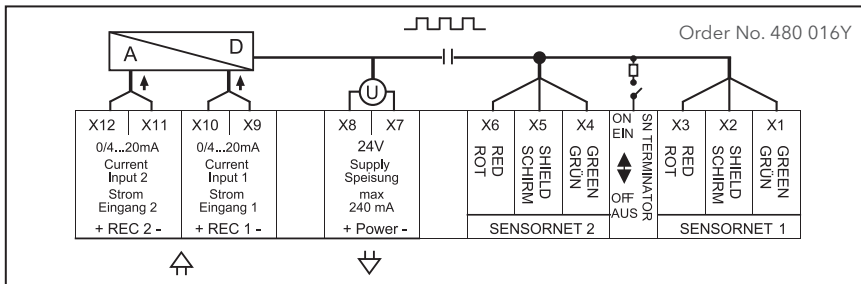
MIQ/MC3, MIQ/MC3-PR and MIQ/MC3-MOD



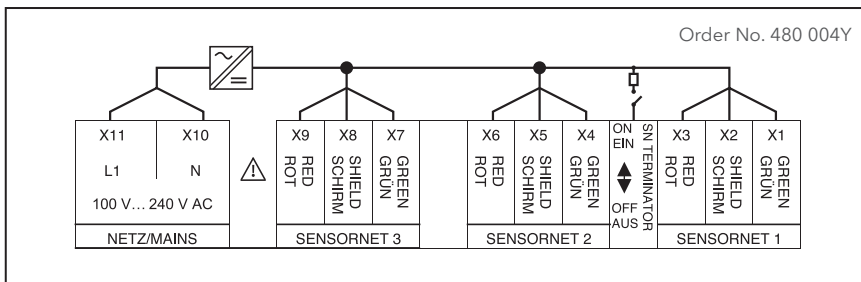
MIQ/3-PR and MIQ/3-MOD



MIQ/IC2



MIQ/PS



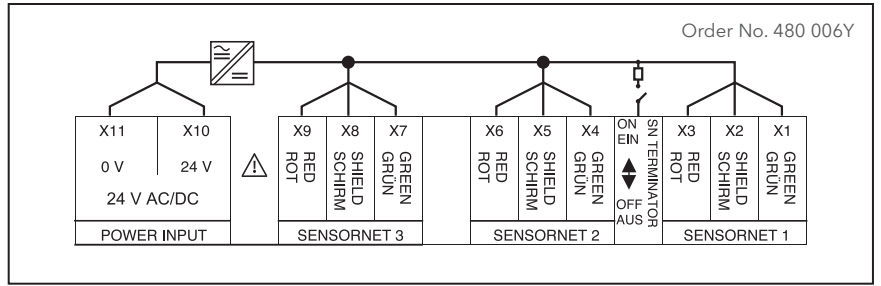
Explanation

Signal amplification is bidirectional between Sections A and B. The weakened signals of Section A are amplified and transmitted to Section B and vice-versa. The power supply of both Sections A and B is electrically connected.

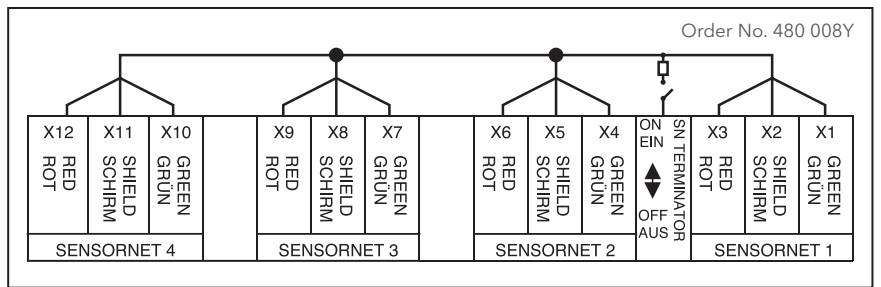
Special characteristics

The MIQ module couplings at the front and back are connected with Section A for stack mounting (important for the ID function).

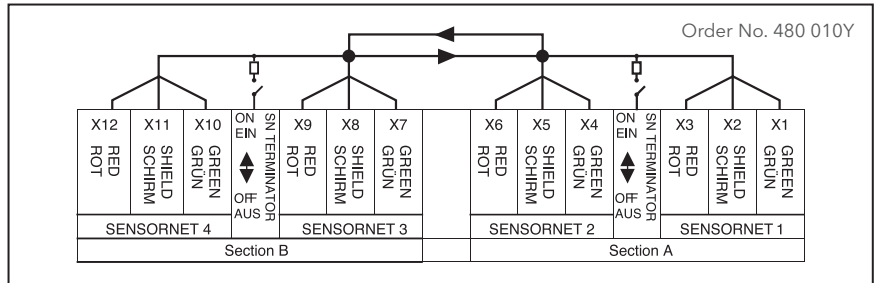
MIQ/24V



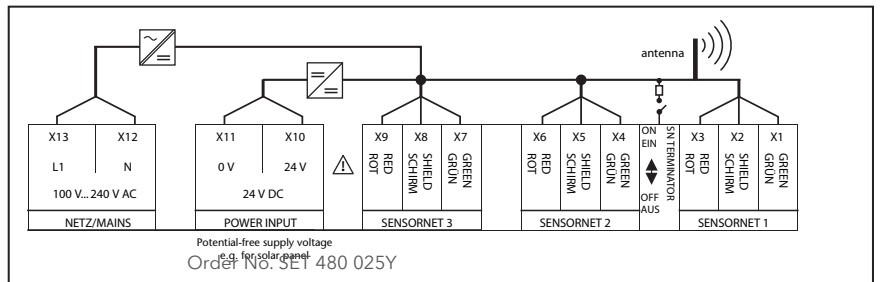
MIQ/JB



MIQ/JBR



MIQ/WL PS SET



The System 282/284

Model	Description	Order No.
System 282/284		
Monitors for up to 2 digital sensors		
DIQ/S 282-CR3	New Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays	472 110Y
DIQ/S 282-PR	New Universal Transmitter to operate up to 2 digital IQ sensors, with PROFIBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 111Y
DIQ/S 282-MOD	New Universal Transmitter to operate up to 2 digital IQ sensors, with MODBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 112Y
DIQ/S 282-CR3-E	New Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, with RJ45 interface for internet connection and remote control	472 113Y
DIQ/S 282-EF	New Universal Transmitter to operate up to 2 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays	472 114Y
DIQ/S 282-CR3/24V	New Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, for 24 V AC/DC power supply	472 120Y
DIQ/S 282-PR/24V	New Universal Transmitter to operate up to 2 digital IQ sensors, with PROFIBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 121Y
DIQ/S 282-MOD/24V	New Universal Transmitter to operate up to 2 digital IQ sensors, with MODBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 122Y
DIQ/S 282-CR3-E/24V	New Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, with RJ45 interface for internet connection and remote control, for 24 V AC/DC power supply	472 123Y
DIQ/S 282-EF/24V	New Universal Transmitter to operate up to 2 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays, for 24 V AC/DC power supply	472 124Y
Monitors for up to 4 digital sensors		
DIQ/S 284-CR6	New Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays	472 130Y
DIQ/S 284-PR	New Universal Transmitter to operate up to 4 digital IQ sensors, with PROFIBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 131Y
DIQ/S 284-MOD	New Universal Transmitter to operate up to 4 digital IQ sensors, with MODBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 132Y
DIQ/S 284-CR6-E	New Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, with RJ45 interface for internet connection and remote control	472 133Y
DIQ/S 284-EF	New Universal Transmitter to operate up to 4 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays	472 134Y
DIQ/S 284-CR6/24V	New Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, for 24 V AC/DC power supply	472 140Y
DIQ/S 284-PR/24V	New Universal Transmitter to operate up to 4 digital IQ sensors, with PROFIBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 141Y
DIQ/S 284-MOD/24V	New Universal Transmitter to operate up to 4 digital IQ sensors, with MODBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472 142Y
DIQ/S 284-CR6-E/24V	New Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, with RJ45 interface for internet connection and remote control, for 24 V AC/DC power supply	472 143Y
DIQ/S 284-EF/24V	New Universal Transmitter to operate up to 4 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays, for 24 V AC/DC power supply	472 144Y
DIQ Module		
DIQ/JB	Dual IQ/Junction box for connection of a second or an IQ sensor in bigger distance to the system 282/284	472 005Y
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472 007Y
MIQ Modules and Cables for System Supplement		
MIQ/PS	Module IQ/Power Supply, wide-range power supply for system 2020 XT and 282/284, power output max. 18 W, 3 idle IQ SENSORNET connections	480 004Y
MIQ/24V	Module IQ/24V, power supply for 24 VAC / 24 VDC input voltage, for system 2020 XT and 282/284, power output max. 18 W, 3 idle IQ SENSORNET connections	480 006Y
MIQ/JB	Module IQ/Junction Box for system 2020 XT and 282/284, 4 idle IQ SENSORNET connections	480 008Y
MIQ/R6	Module IQ/Relais 6, for system 2020 XT and 282/284, with 6 relays (240 VAC/2 A)	480 013Y
MIQ/CR3	Module IQ/Current Relais 3, for System 2020 XT and 282/284, with 3 analog (0/4-20 mA) and 3 relay outputs (250 VAC/5 A)	480 014Y
MIQ/C6	Module IQ/Current 6, for system 2020 XT and 282/284, with 6 (0) 4 - 20 mA outputs	480 015Y
MIQ/IC2	Module IQ/input current with 2 (0) 4 - 20 mA inputs, for system 2020 XT and 282/284	480 016Y
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y

Model	Description	Order No.
MIQ/WL PS	Module IQ Wireless, for cable free communication within the IQ SENSORNET System 282/284 and System 2020. Extension module for starter set MIQ/WL PS SET (480025).	480 023Y
MIQ/WL PS SET	Modul IQ/Wireless, for cable free communication within the IQ SENSORNET System 282/284 and System 2020. Starter set consists of 1 Master and 1 Slave. Extension with MIQ/WL PS (480023) possible.	480 025Y
SNCIQ	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Please indicate cable length in m when ordering (unit: m)	480 046Y
SNCIQ/UG	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system, esp. for use in underground Please indicate cable length in m when ordering (unit: m)	480 047Y
SNCIQ-100	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 100 m (109 yds)	480 068Y
SNCIQ-200	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 200 m (119 yds)	480 069Y
SNCIQ-250	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system. Cable reel with 250 m (273 yds)	480 070Y
SNCIQ/UG-250	Specific two-wire IQ SENSORNET cable with shield for safe power/information transfer within the IQ SENSORNET system, esp. for use in underground. Cable reel with 250 m (273 yds).	480 075Y
ADA/D-SUB	D-SUB connection for Profibus and Modbus connections for the IQ 2020 and 282/284 systems.	902 888Y

General Technical Data System 282/284	
System	
Certifications	CE
Electromagnetic Compatibility	EN 61326-1, Emission: Class A, FCC Class A
Integrated Overvoltage Protection	According to EN 61326-1 enhanced overvoltage protection for the entire system
Connection Medium Cable	IQ SENSORNET cable SNCIQ or SNCIQ/UG (underground cable with additional PVC coating): 2-wire with shield; 2 x 0.75 mm ² ; filler cord for easy connection of shield: 0.75 mm ² ; pressure resistant to 10 bar
Connection Characteristics	Power supply and data transmission on these wires; resistant to polarity reversal with respect to switched shield and inner conductor (no damage); comprehensive EMC shield control; Cable topology within the IQ SENSORNET system as required, e.g. in the form of a line, tree, star; total cable length max. 250 m (273 yds)
Connection Medium Radio	Radio transmission with a range of up to 100 m (109 yds)
Monitors	
Display	Graphic TFT Display; Resolution: 320 x 240 pixel; backlit
Control Functions/ Function Keys	5 operating keys: 3 master keys for functions: measurement (M), calibration (C), set/system settings (S), 2 keys for: confirmation/switching menu O.K. (OK), escape (ESC) Arrow keys for rapid selection of software functions and input of alpha-numeric values (up), (down)
Electric Supply	100 ... 240 VAC (50/60 Hz), 24 V AC/DC
MIQ Modules Coupling at Rear	Combined mechanical and electrical connection for docking additional modules, additionally max. 2 modules as stack mounted unit
Cable feeds	4 screw cable glands M 16 x 1.5 (expansible to M 20 if required)
Terminal connections	Screw terminal strips Terminal area for solid conductors: 0.2 ... 4.0 mm ² Terminal area for flexible conductors: 0.2 ... 2.5 mm ² accessible by opening cover
IQ SENSORNET Terminal Connections	Terminal connections for the IQ SENSORNET for connecting sensors
Ambient conditions	Operating temperature: -20 °C ... +55 °C (-4 °F ... 131 °F); Storage temperature: -25 °C ... +65 °C (-13 °F ... 149 °F)
Housing material	PC - 20 % GF (polycarbonate with 20 % fiberglass)
Protection Rating	IP 67 / corresponding to NEMA 4X (not for direct conduit connections). Conduits need to be connected with flexible adapters (CC-Box), respectively with adapters CC-PM.
Dimensions (W x H x D)	144 x 144 x 125 mm (5.67 x 5.67 x 4.92 in.) (DIQ/S 284-CR6: 144 x 144 x 173 mm (5.67 x 5.67 x 6.81 in.); DIQ Modules: 94 x 94 x 57 mm (3.74 x 3.74 x 2.28 in.))
Weight	DIQ/S 282-CR3: approx. 1,2 kg (2.6 pounds) DIQ/S 284-CR6: approx. 1,7 kg (3.7 pounds)
Warranty	3 years for defects of quality
Sensors	
Mechanical Connections for Accessories	Connection slot; connection screw thread G 1"
IQ Sensor Connection Cable	Combined mechanical and electrical connection for rapide attachment and exchange of sensors. Consists of jack plug and pressure-resistant screw connection. Cable lengths: 1.5 - 7.0 - 15.0 m (1.64 - 7.66 - 16.40 yds) (20 m - 50 m (21.87 yds. - 54.68 yds) in sea water design) available. Storage temperature: -25 °C ... +65 °C (-13 °F ... 149 °F) Operating temperature: -20 °C ... +55 °C (-4 °F ... +131 °F)

Module	DIQ/S 282	DIQ/S 284
Max. number of sensors	2	4
IQ SENSORNET connections	DIQ/S 282-CR3/(24V) 1; all others 2	DIQ/S 284-CR6/(24V) 3; all others 2
Version with analog outputs	3 x (0) 4 ... 20 mA 3 x Relays (optional: Ethernet interface for remote control)	6 x (0) 4 ... 20 mA 6 x Relays (optional: Ethernet interface for remote control)
Ethernet Version	Connection for Ethernet fieldbus 3 x Relays	Connection for Ethernet fieldbus 3 x Relays
PROFIBUS Version	Connection for PROFIBUS 3 x Relays	Connection for PROFIBUS 3 x Relays
MODBUS Version	Connection for MODBUS 3 x Relays	Connection for MODBUS 3 x Relays

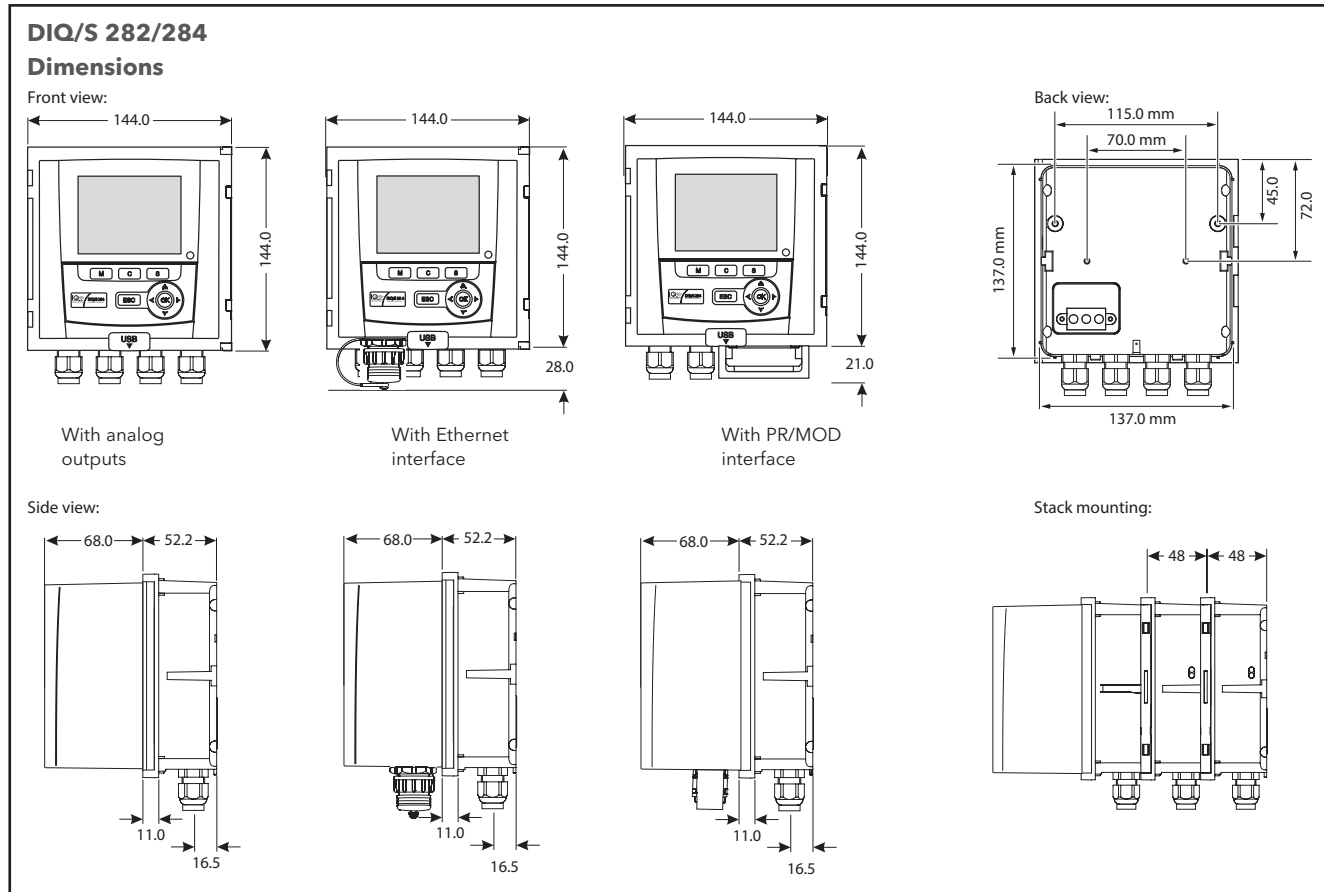
Configuration and Performance Data			
Type	Description	Systems 282/284 Number Min/Max	Power consumption [W]
IQ Sensors			
Sensolyt® 700 IQ (SW)	pH/ORP assembly	DIQ/S 282 1/2	⇒ 0.2
TriOxmatic® 700 IQ (SW)	D.O. sensor		⇒ 0.2
TriOxmatic® 701 IQ	D.O. sensor	DIQ/S 284 1/4	⇒ 0.2
TriOxmatic® 702 IQ	D.O. sensor		⇒ 0.2
FDO® 700 IQ (SW)	Optical D.O. sensor		⇒ 0.7
FDO® 701 IQ (SW)	Optical D.O. sensor with faster response time		⇒ 0.7
TetraCon® 700 IQ (SW)	Conductivity sensor		⇒ 0.2
VisoTurb® 700 IQ (SW)	Turbidity sensor		⇒ 1.5
ViSolid® 700 IQ (SW)	Suspended solids sensor		⇒ 1.5
VARION®Plus 700 IQ	Double sensor Ammonia and Nitrate (ISE)		⇒ 0.2
AmmoLyt®Plus 700 IQ	Ammonia assembly (ISE)		⇒ 0.2
NitraLyt®Plus 700 IQ	Nitrate assembly (ISE)		⇒ 0.2
NitraVis® 701/705 IQ (TS)	Spectral Nitrate sensor		⇒ 8.0 ***
NitraVis® 701/705 IQ NI	Spectral sensor for the measurement of Nitrate and Nitrite		⇒ 8.0 ***
CarboVis® 701/705 IQ (TS)	Spectral sensor for the measurement of COD/TOC/DOC/BOD/SAC/UVT ₂₅₄		⇒ 8.0 ***
NiCaVis® 705 IQ	Spectral sensor for the measurement of Nitrate and COD/TOC/DOC/BOD/SAC/UVT ₂₅₄		⇒ 8.0 ***
NiCaVis® 701/705 IQ NI	Spectral sensor for the measurement of Nitrate, Nitrite and COD/TOC/DOC/BOD/SAC/UVT ₂₅₄	⇒ 8.0 ***	
UV 701/705 IQ SAC	Optical sensor for the measurement of SAC and UVT ₂₅₄	⇒ 8.0 ***	
UV 701/705 IQ NOx	Optical sensor for the measurement of NOx	⇒ 8.0 ***	
IFL 700 IQ	Sludge level sensor with automated cleaning	⇒ 5.5 ***	
IFL 701 IQ	Sludge level sensor	⇒ 3.0	
P700 IQ	Orthophosphate analyzer	⇒ 0.5	
Output modules analog with ⊗ number of IQ SENSORNET terminal connections			
MIQ/CHV PLUS	Module IQ / Cleaning Head Valve for automatically controlled cleaning	②	1/2 and 1/4 respectively ⇒ 2.5
MIQ/CR3	Module IQ / Current Relays 3, with 3 analog outputs and 3 relay outputs	②	1/2 ⇒ 3.0
DIQ/CR3	Module IQ / Current Relays 3, with 3 analog outputs and 3 relay outputs	②	1/2 ⇒ 3.0***
MIQ/C6	Module IQ / Current 6 with 6 analog outputs	②	1/2 ⇒ 3.0
MIQ/R6	Module IQ / Relays 6 with 6 relay outputs	②	1/2 ⇒ 1.5
Output modules digital			
MIQ/WL PS SET	Module IQ for wireless connection within the IQ SENSORNET System	③	1/4 ⇒ 0.6
Power input connection module mA			
MIQ/IC2**	Module IQ / Input Current 2 with 2 inputs for 0(4) ... 20 mA signals	②	0/2 ⇒ 0.2 *
MIQ/JB	Module IQ / Junction Box	④	0/4 ⇒ 0.0 (passive module)

* further power consumption by external devices is possible.

** each occupied current input is counted as IQ sensor

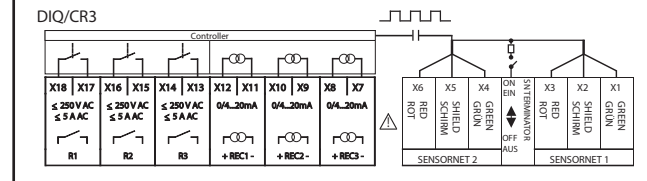
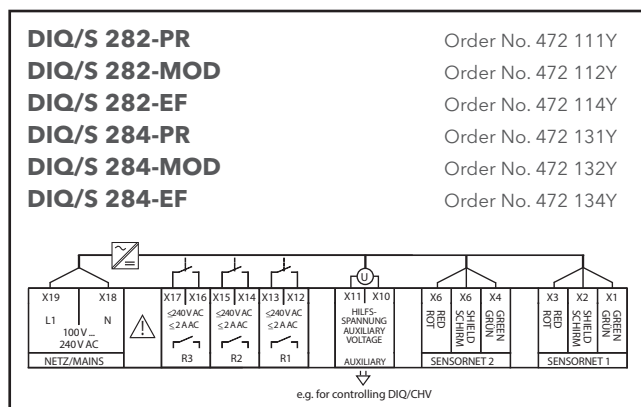
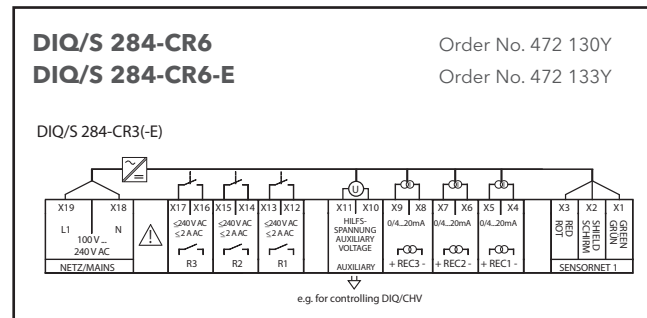
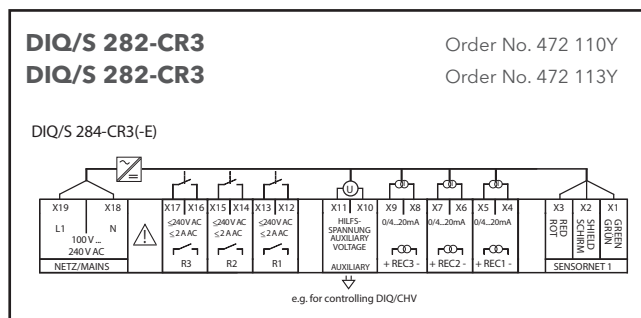
*** When operating with System 282/284, the average power consumption can be used.
Details see operating manual System 282/284.

Monitors System 282/284



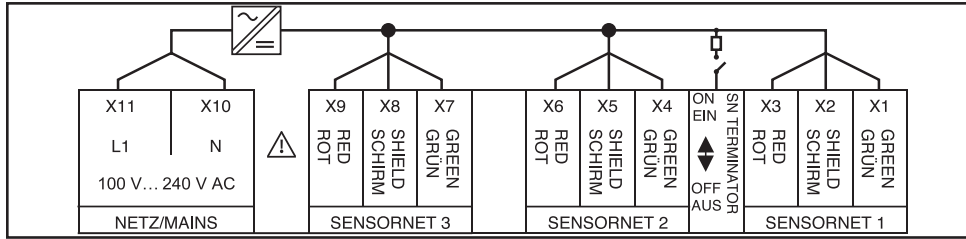
IQ SENSORNET

Electrical Connections Monitors System 282/284

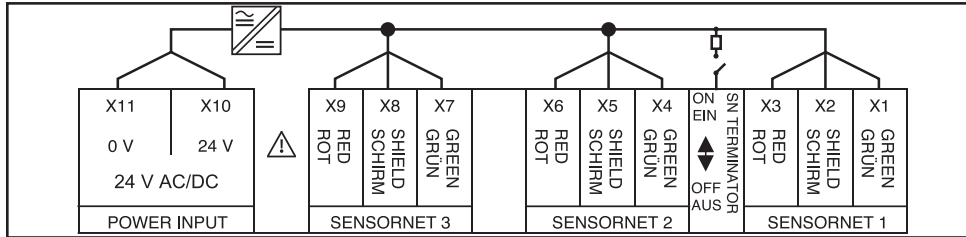


24V versions are identical, except connections X18 and X19

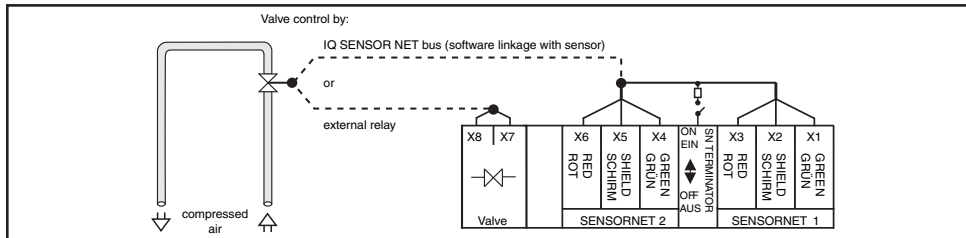
Electrical Connections MIQ/Modules for System Supplement



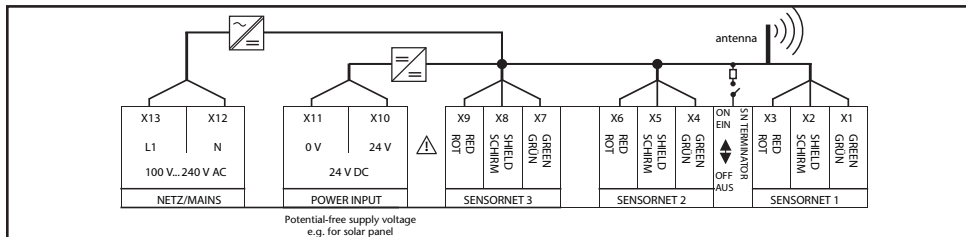
MIQ/PS
Order No. 480 004Y



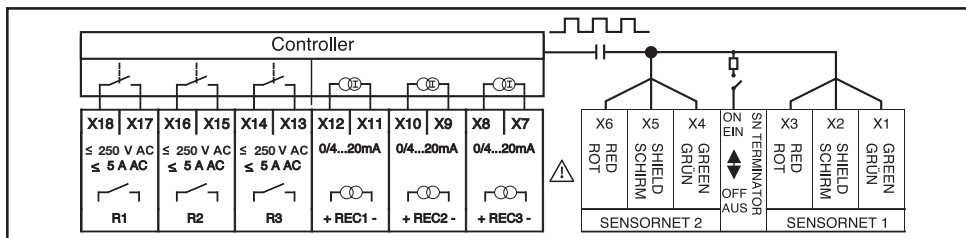
MIQ/24V
Order No. 480 006Y



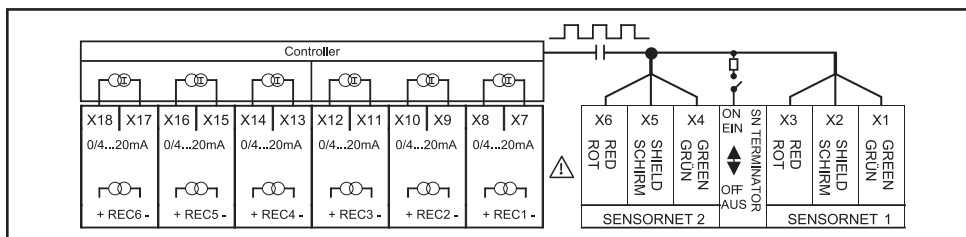
MIQ/CHV PLUS
Order No. 480 018Y



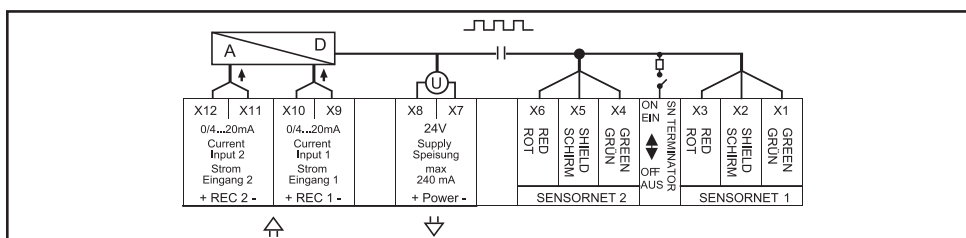
MIQ/WL PS SET
Order No. 480 025Y



MIQ/CR3
Order No. 480 014Y



MIQ/C6
Order No. 480 015Y



MIQ/IC2
Order No. 480 016Y

TresCon® Analyzer

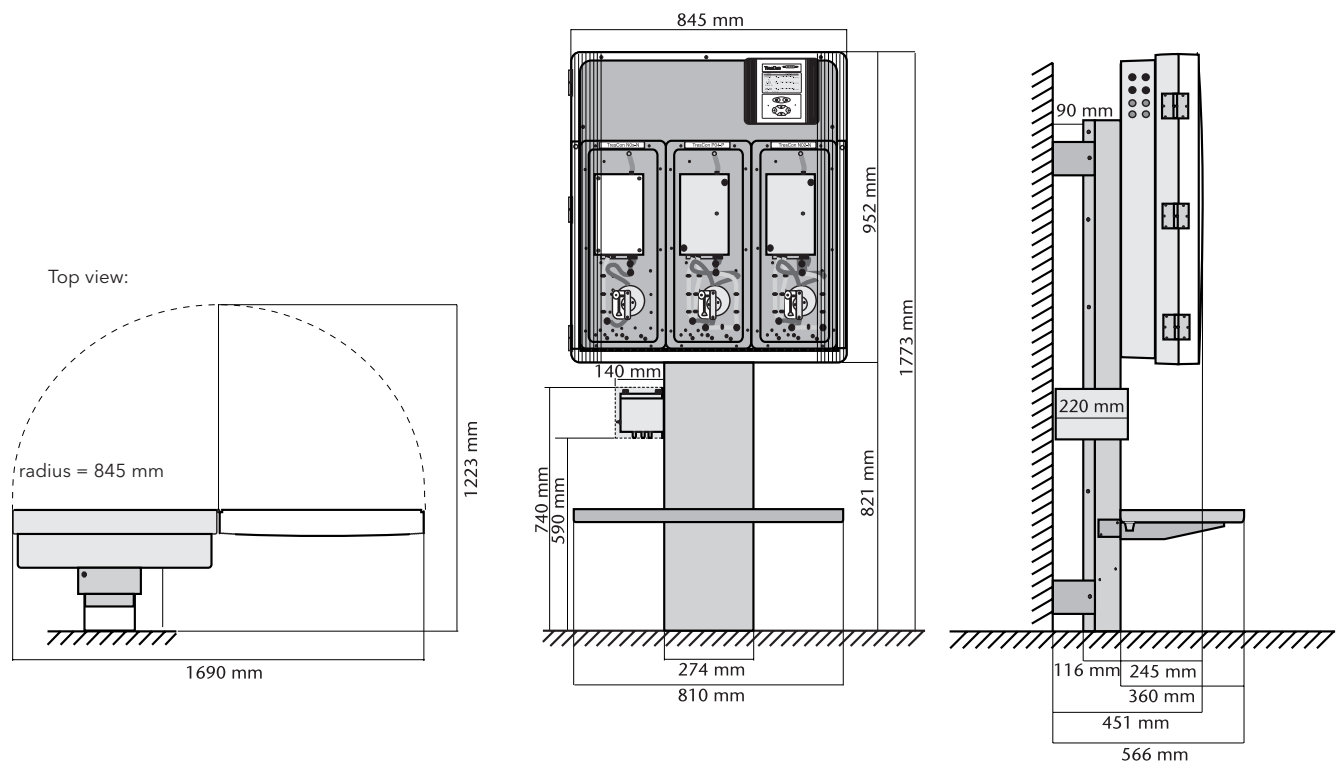
Ordering Information		Order No.		
One TresCon® basic instrument (without module) consisting of:	TresCon® terminal, mounting column, reagent tray overflow vessel for max. three modules, terminal operating instructions (German) If operating instructions in English are required these must be ordered separately.	1 st module	2 nd module	3 rd module
TresCon® basic instrument (with first analyzer module)				
TresCon® Ammonium, A111	Basic instrument with OA 110 module for Ammonium-Nitrogen	8A-1		3
TresCon® Nitrate, N211	Basic instrument with ON 210 module for Nitrate-Nitrogen	8A-2		3
TresCon® Nitrite, N511	Basic instrument with ON 510 module for Nitrite-Nitrogen	8A-3		3
TresCon® Orthophosphate, P211/MB1	Basic instrument with OP 210/MB1 module for Orthophosphate (measuring range 1)	8A-4		3
TresCon® Orthophosphate, P211/MB2	Basic instrument with OP 210/MB2 module for Orthophosphate (measuring range 2)	8A-5		3
TresCon® Orthophosphate, P211/MB3	Basic instrument with OP 210/MB3 module for Orthophosphate (measuring range 3)	8A-6		3
TresCon® Nitrate/SAC, S211	Basic instrument with OS 210 module for Nitrate-Nitrogen and SAC	8A-7		3
TresCon® Total Phosphorus, P511	Basic instrument with OP 510 module for Total Phosphorus (requires two module places)	8A-8	X	3
Ordering options for additional analyzer modules (2nd/3rd module)				
Without additional analyzer module			0	0
NH₄ analyzer module (Ammonium-Nitrogen), OA 110			1	1
NO₃ analyzer module (Nitrate-Nitrogen), ON 210			2	2
NO₂ analyzer module (Nitrite-Nitrogen), ON 510			3	3
PO₄ analyzer module (Orthophosphate), OP 210/MB 1			4	4
PO₄ analyzer module (Orthophosphate), OP 210/MB 2			5	5
PO₄ analyzer module (Orthophosphate), OP 210/MB 3			6	6
NO₃/SAC analyzer module (Nitrate-Nitrogen and SAC), OS 210			7	7
Other ordering options				
Please complete the ordering number by entering the required versions:				
				3 0
Ordering example:	TresCon® Ammonium A111 with additional nitrate module, for wall mounting with mounting stand	8A-1	2	0 3 0

Analyzer

Model	Description	Order No.
Accessories TresCon®		
TresCon® without module	TresCon® system without module for on-line measurement incl. manual, 100...120 / 200...240 V AC (AutoSelect); 47...63 Hz. With bracket for mounting and fixing parts for reagent tray, ower cable 2 m, DN40 escape pipe with connecting piece.	820 042Y
TC/ÜB 1	Overflow vessel for 1 parameter, for TresCon® systems.	821 004Y
TC/PU 1	Preassembled 2-cannel permeate switch with a tripple overflow vessel, a single overflow vessel and three/two way valves for TresCon® systems.	821 008Y
USB adapter TresCon® MIQ	Adapter USB onto serial interface RS 232 (9-pin socket) for TresCon®, including cable.	902 885Y
BA/TC/d	Terminal instruction manual TresCon® German.	BA43108dY

Technical Data TresCon®	
Sample preparation	TresCon® analyzer modules require continuous sample input with a low solids content; typical sample preparation with PurCon® (see Sample Preparation Section).
Sample delivery	Sample presented for analysis in overflow vessels supplied; up to three analyzer modules can be connected to one overflow vessel. Operation with up to three overflow vessels is also possible (parallel analysis of different samples).
Interfaces	3 freely configurable galvanically separated 0/4-20 mA outputs, 12 potential-free relays, freely configurable, RS 232, RS 485.
Electronical connections	100...120/200...240 VAC (AutoSelect); 47...63 Hz
Ambient conditions	Storage temperature -25 ... 60 °C (-13 ... 140 °F), operating temperature 0 ... 40 °C (32 ... 104 °F), climate class 4, VDI/VDE 3540 Bl. 2
Test marks	CE, DIN-GOST
Instrument protection	Safety class I according to IEC 1010-1/EN 61010-1
Weight	Empty housing: 27 kg (59.5 lb); each module: 10 kg (22 lb); mounting column: 25 kg (55 lb)
Warranty	2 years for defects of quality

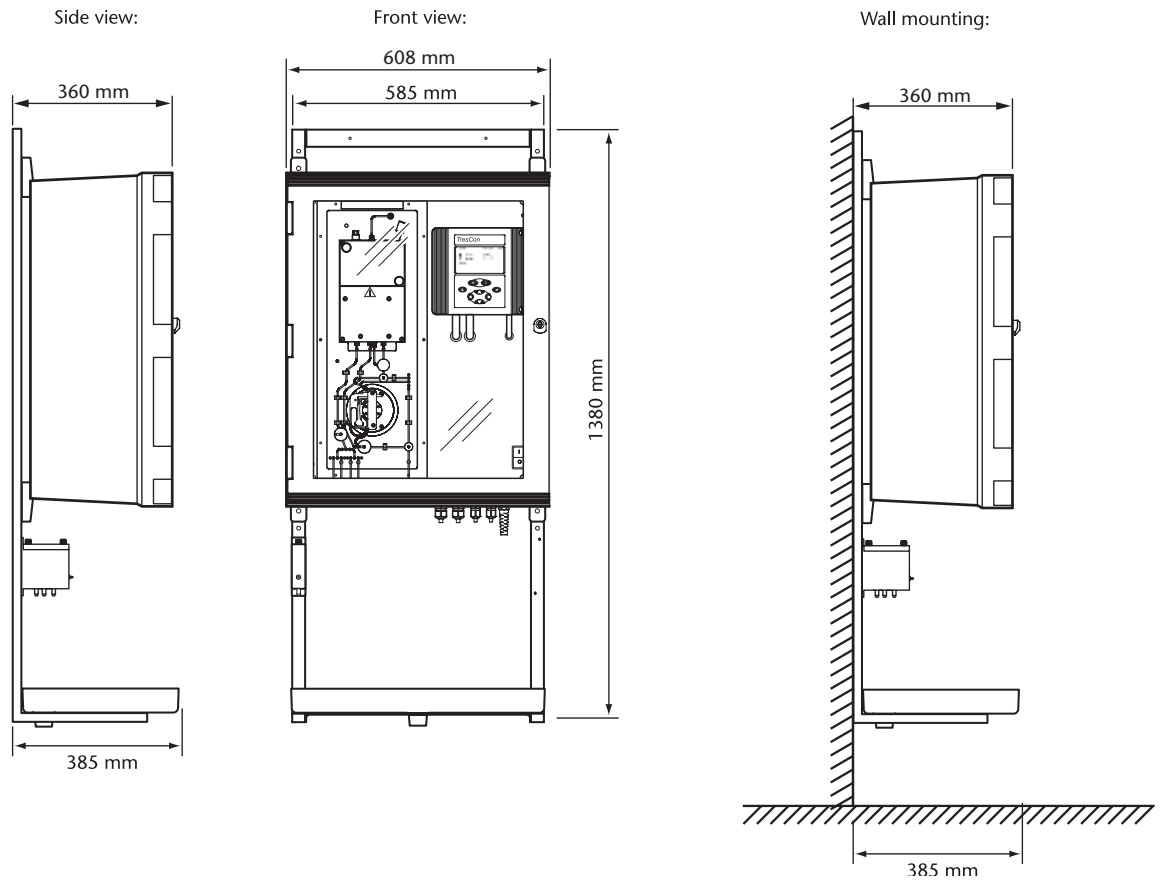
TresCon® Dimensions



Model	Description	Order No.
TresCon® Uno		
TresCon® Uno without module	TresCon® Uno single parameter system without module for on-line measurement incl. Manual, 230VAC/50 Hz, 105...250 V AC; 47...63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), DN40 escape pipe with connecting piece.	820 043Y
TCU/A111	TresCon® Uno single parameter system with module OA 110 for on-line measurement of ammonium, incl. manual, 105...250 V AC; 47...63 Hz with bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 4-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 101Y
TCU/N511	TresCon® Uno single parameter system with module ON 510 for on-line measurement of nitrite, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 103Y
TCU/P211-MB1	TresCon® Uno single parameter system with module OP 210/MB1 for on-line measurement of orthophosphate: Range 1, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 104Y
TCU/P211-MB2	TresCon® Uno single parameter system with module OP 210/MB2 for on-line measurement of orthophosphate: Range 2, incl. Manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 105Y
TCU/P211-MB3	TresCon® Uno single parameter system with module OP 210/MB3 for on-line measurement of orthophosphate: Range 3, incl. manual, 105 ... 250 V AC; 47 ... 63 Hz. With bracket for mounting and fixing parts for wall mounting, reagent tray, power cable 2 m (6.5 ft), chemicals for 3-month operation, overflow vessel with tubing and DN40 escape pipe with connecting piece.	820 106Y
USB adapter TresCon® MIQ	Adapter USB onto serial interface RS 232 (9-pin socket) for TresCon®, including cable.	902 885Y

Technical Data TresCon® Uno	
Measuring ranges	Ammonium: 0.05 ... 1,000 mg/l NH ₄ -N Nitrite: 0.05 ... 1.200 mg/l NO ₂ -N Orthophosphate Range 1: 0.05 ... 3.00 mg/l PO ₄ -P Orthophosphate Range 2: 0.10 ... 10.0 mg/l PO ₄ -P Orthophosphate Range 3: 0.10 ... 25.0 mg/l PO ₄ -P
Calibration	Automatic 2-point-calibration (works calibration for N211 and S211)
Measurement intervals	Cont., 5, 10, 15, 20, 25, 30 min to be set depending on the parameter
Sample preparation	Depending on the application: none, PurCon® or PurCon® IS
Mains	105...250 VAC; 47...63 Hz
Operation temperature	32 ... 104 °F (0 ... 40 °C)
Dimensions, Weight (W x H x D, lb/kg)	Analyzer: 24.1 x 30.5 x 13 in. (612 x 775 x 329 mm), approx. 77.2 lb/35 kg Reagent tray: 23.2 x 2 x 14.2 in. (590 x 50 x 360 mm), approx. 37.5 lb/17 kg
Warranty	2 years for defects of quality

TresCon® Uno Dimensions



Sample Preparation

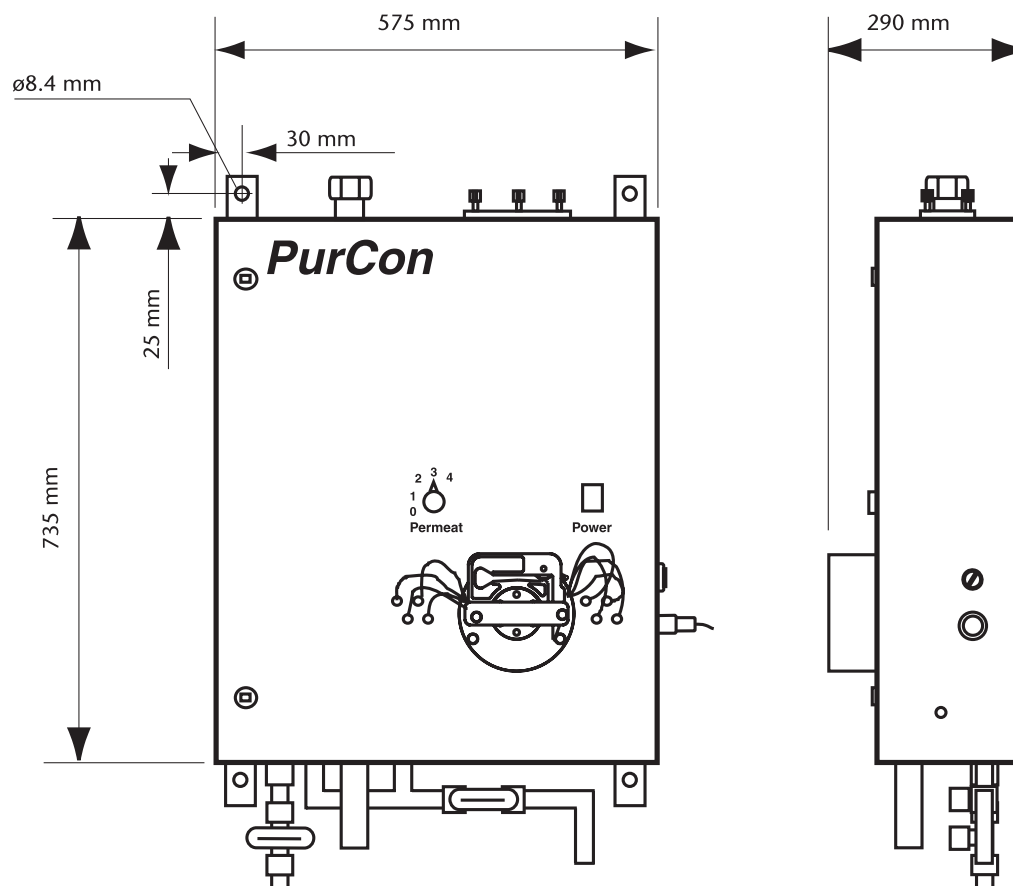
Model	Description	Order No.
PurCon®		
PurCon®/230	PurCon® sample preparation system, incl. instruction manual, 230VAC/50Hz . Supplied with: 1 m (3.3 ft) permeate tubing with adapter and 3 cable clamp for feed tubing.	810 000Y
PurCon®/115	PurCon® sample preparation system, incl. instruction manual, 115VAC/60Hz. Supplied with: 1 m (3.3 ft) permeate tubing with adapter and 3 cable clamp for feed tubing.	810 008Y
PurCon® IS/2-230	# PurCon® IS sample preparation, filter unit for supply of one TresCon® analyzer module, incl. instruction manual, 230VAC/50 Hz. Supplied with: 2 filter membranes, 5 m (16.2 ft) suction hose and control unit (230 VAC)	810 050Y
PurCon® IS/4-230	# PurCon® IS sample preparation, filter unit for supply of up to 3 TresCon® analyzer modules, incl. instruction manual, 230VAC/50 Hz. Supplied with: 4 filter membranes, 5 m (16.2 ft) suction hose and control unit (230 VAC)	810 051Y
Accessories PurCon®/PurCon® IS		
PF 105	Sample bypass unit for direct supply of WTW analyzer with sample, completely mounted; not included: pumps	000 670Y
SET1/PurCon®	Set of pump tubing for PurCon® permeate pump.	810 002Y
AF/PurCon®	Spare air filter for PurCon® compressor.	810 005Y
PCIS-PL5/H	Permeate line 5 m (16.2 ft) for PurCon® IS, with freeze protection.	810 065Y
PCIS-PL10/H	Permeate line 10 m (33 ft) for PurCon® IS, with freeze protection.	810 066Y
PCIS-PL20/H	Permeate line 20 m (65 ft) for PurCon® IS, with freeze protection.	810 067Y
PCIS-MSK	Set for chain mounting for PurCon® IS filter unit.	810 071Y
PCIS-MSG	Set for bar mounting for PurCon® IS control unit.	810 073Y
SW/P102	Exchange cutting unit for P102, P102/1 and FGT 615-2 top-and bottom part.	810 117Y
FT/PC	Filter module set (4 pieces) for PurCon® and PurCon® IS.	820 065Y
LSet/PC	Set air tubing for PurCon®.	820 066Y
SL/SET/PC	Piping Set for PurCon®.	820 067Y
FT/PCIS-2	Filter module set (2 pieces) for PurCon® IS.	820 068Y
SLSet/PCIS	Kit of tubes for PurCon® IS (inside of filter modules / controller unit).	820 069Y
VB 105	Overflow vessel with continuous sample flow for analyzer.	830 860Y
P 105	Submersible pump without cutting blade for PurCon®, PF 105 or FPB.	850 007Y
FGT 626-2 = P101	Medium-power submersible pump with cutting blade for supplying wastewater from the aeration stage of wastewater treatment plants.	850 008Y
FGT 615-2 = P102/1	Low-power submersible pump with cutting blade for supplying wastewater from the aeration stage of wastewater treatment plants.	850 010Y
PZ 105	50 m (162 ft) reinforced PVC fabric tubing for pump P 100 (I.D. 19 mm, s = 4 mm).	850 017Y
BS-P102	Mounting set for submersible pumps P 101, P102/1 and P 105 (V4A stainless steel chain (length 5 m/16.2 ft) and 2 stainless steel shackle).	850 110Y
ADA-PS	GEKA adapter for connecting pumps P105, P101 and P102/1 with hose PZ105.	850 115Y

For system PurCon® IS/2-230 resp. PurCon® IS/4-230 a permeate line PCIS-PL must be ordered separately (see accessories PurCon®/PurCon® IS: Order No. 810 060 - 810 067).



Technical Data PurCon®		
Permeate	Feed to Analyzer	Continuous
	Yield	3.6 l/h max., adjustable in four increments
	Quality	Free of solid matter and bacteria
Sample Delivery	Minimum ... maximum	400 ... 1.500 l/h
Connections	Sample inlet	Hose barb fitting, 3/4" I.D.
	Drain outlet	PVC pipe fitting, 50 mm (51.97 in.) I.D., pressureless
	Rinsing outlet	Hose barb fitting, 3/4" I.D.
	Permeate outlet	Screw fitting, 1.54 mm dia. (0.06")
Electrical Requirements	Voltage	230 VAC / 115 VAC (depending on version)
	Power consumption	150 VA approx. (without pump)
	EMC	According to EN 62 326 class B, Annex A, FCC class A
Mechanical, Protection Rating	Dimensions (HxWxD)	735 x 575 x 220 mm (2.38 x 1.86 x 0.71 ft.)
	Material	316 stainless steel; IP 33
	Weight	Approx. 36 kg (79.38 lb)
Maintenance Requirements	Municipal applications	Depends on location and wastewater load, typically 20 min / month
Ambient Conditions	Temperature	Storage: -25 ... 60 °C (-13 ... 140 °F) / Operating: 0 ... 40 °C (32 ... 104 °F)
Certification	CE, DIN-GOST	
Warranty	2 years for defects of quality	

PurCon® Dimensions

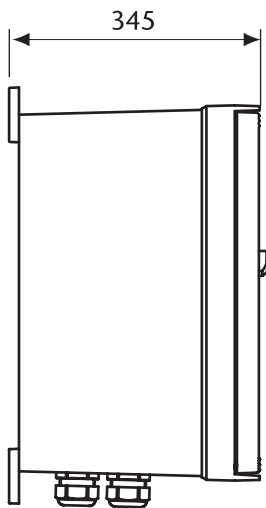


Technical Data PurCon® IS	
Permeate Stream Sufficient for	PurCon® IS/2-230: supply of one TresCon® analyzer module PurCon® IS/4-230: supply of up to three TresCon® analyzer modules
Hose Length	Suction hose: 5 m (5.47 yds) Permeate line 5, 10 or 20 m (5.47, 10.94 or 21.87 yds)
Operating Temperature	-20 ... + 40 °C (-4 ... 104 °F); with freeze protection
Applications	Suited for outside operation
Mounting	Filter unit: Chain-, railing-, wall-, basin-, column mounting Control unit: railing-, wall mounting In combination with mounting sets and the WTW mounting system
Dimensions (B x H x T, kg/lb), Weight, Protection Rating	Filter unit: 321 x 934 x 71 mm (1.04 x 3.03 x 0.23 ft.), 10 kg (22 lb), IP 68 Control unit: 412 x 513 x 345 mm (1.34 x 1.66 x 1.12 ft.), 15 kg (33 lb), IP 33
Warranty	2 years for defects of quality

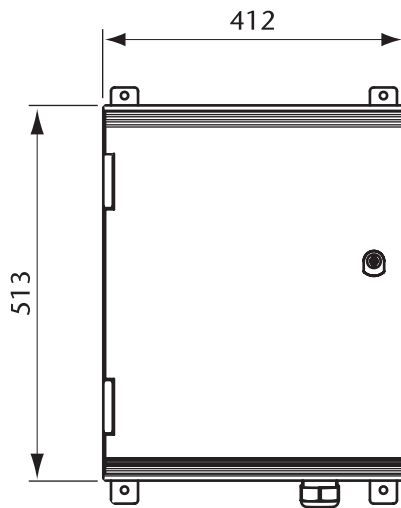
PurCon® IS Dimensions

Dimensions in mm

control unit:

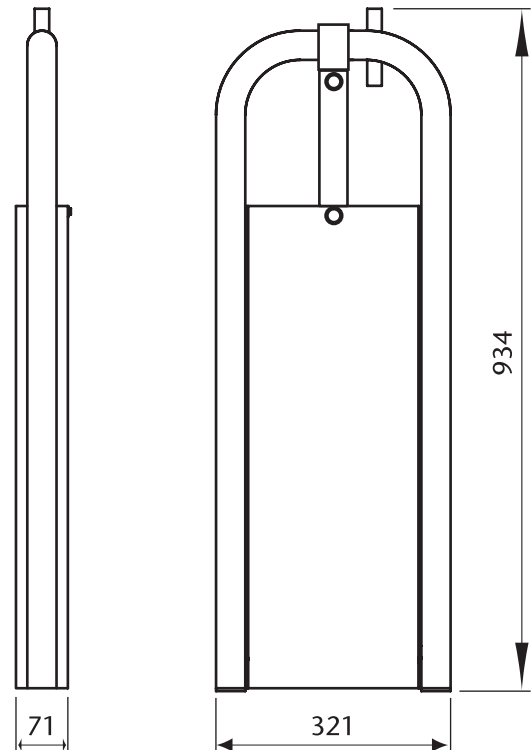


side view



front view

filter unit:



Sample Preparation

Secondary Sedimentation Stage/Final Effluent

In the effluent water from the secondary sedimentation the concentration of solids is often so high that sample preparation is required before on-line analysis can take place. In the effluent from wastewater treatment plant it is possible to carry out on-line analysis with TresCon® without any sample preparation as the analyzer module uses the AutoClean® method; this is a very efficient automatic self-cleaning system.

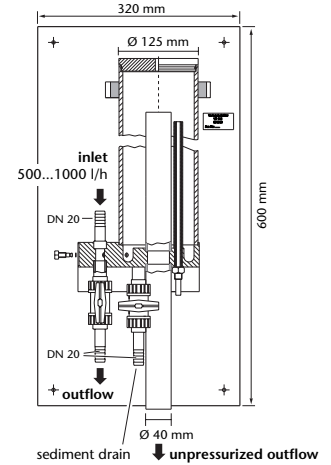
Final Effluent

If TresCon® analyzers are used in slightly loaded wastewater such as wastewater treatment plant effluent the

- PF 105 sample bypass** Order No. 000 670Y
 is used to provide the analyzer module with unfiltered sample. The unit consists of a Y-shaped pipe branch with a valve for regulating the flow in the bypass. The supply to the TresCon® analyzer can be set with a second fine valve in the sample branch. To protect the TresCon® analyzer module coarse particles are retained by a woven-wire sieve in the branch.
- Overflow vessel VB 105** Order No. 830 860Y
 with continuous sample flow is used to feed the analysis modules with non-filtrated sample. The unit is made up of a cylindrical vessel with a volume of approx. 2 l. This vessel is continuously being flown through and thus always supplies up-to-date sample.



PF 105 sample bypass



Overflow vessel VB 105

Technical Data PF 105	
Tubing connections	20 mm dia.
Permeate tubing	Length 1 m (1.09 yds), 6 mm (0.24 in.) I.D.
Feed	1000 ... 1500 l/h
Branch	Approx. 3 l/h
Dimensions (H x W)	395 x 330 mm (1.28 x 1.07 ft.)

Secondary Sedimentation

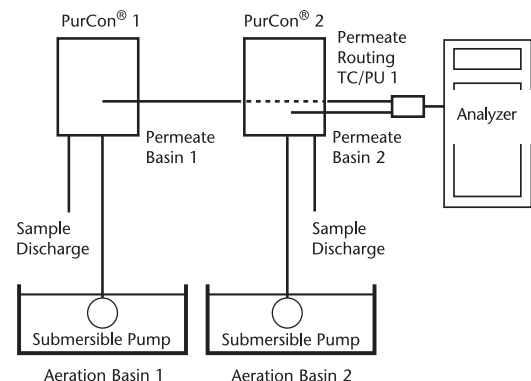
PurCon®

Apart from its use in aeration basins, the PurCon® system is ideal for the preparation of samples from the secondary sedimentation stage. In such cases PurCon® also continuously supplies an adequate amount of high-quality permeate. As only residual solids need to be removed from the sample, extremely low maintenance requirements are achieved.

Dual-Streaming Operation with Sample Routing

The TC/PU 1 Permeate switch can be used for analyzing samples from two different sampling points on a single TresCon® system.

The **TC/PU1** Permeate switch supplies the permeate flow from 2 independent PurCon® systems alternately to the connected TresCon® analyzer modules.



Accessories

Model	Description	Order No.
Junction Boxes, Connection Cables		
KI/pH-MIQ/S	Connection box as wallmounting device, for high impedance plug head electrode use on IQ SENSORNET Systems. K 1/3/5 S and TFK 150/325 temperature sensor separately necessary. Dimensions, W x H x D: 240 x 165 x 95 mm. Protection: IP 65	505 544Y
KI/LF-0,9/MIQ	Connection box for 2- and 4-electrode conductivity cells with NTC for use with IQ SENSORNET systems with a cell constant of 0.917 cm ⁻¹ . Dimensions, W x H x D: 240 x 165 x 95 mm. Protection IP 65.	505 570Y
KI/LF-0,7/MIQ	Connection box for 2- and 4-electrode conductivity cells with NTC for use with IQ SENSORNET systems with a cell constant of 0.778 cm ⁻¹ . For connection to laboratory cells an adapter is required (303212 ADA AMPH LAB LF). Dimensions, W x H x D: 240 x 165 x 95 mm. Protection IP 65.	505 571Y
KI/LF-0,4/MIQ	Connection box for 2- and 4-electrode conductivity cells with NTC for use with IQ SENSORNET systems with a cell constant of 0.475 cm ⁻¹ . For connection to laboratory cells an adapter is required (303212 ADA AMPH LAB LF). Dimensions, W x H x D: 240 x 165 x 95 mm. Protection IP 65.	505 572Y
KI/LF-0,1/MIQ	Connection box for 2- and 4-electrode conductivity cells with NTC for use with IQ SENSORNET systems with a cell constant of 0.1 cm ⁻¹ . For connection to laboratory cells an adapter is required (303212 ADA AMPH LAB LF). Dimensions, W x H x D: 240 x 165 x 95 mm. Protection IP 65.	505 573Y
Sensor Extensions, Sensor Holders		
UA 55	Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: 317 mm (12.48 in)	109 260Y
UA 130	Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: 1067 mm (42.01 in)	109 261Y
UA-SO Armatur	** Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: selectable between 240...2600 mm (9.45...102.36 in)	109 263VY
UA/DS	Spare set of O-ring seals for UA sensor extensions of all lengths	109 265Y
EH/SW	Single electrode holder in seawater design for direct mounting of series 650/690/70X and 70X IQ (SW) sensors	109 317Y
EH/U 170	Sensor holder for direct mounting of series 650/690/70X and 70X IQ sensors to a swing mounting assembly	109 320Y
EH2/U 170	Twin sensor holder for YSI sensors of series 650, 690, 70X and 70X IQ	109 323Y
EH3/U 170	Triple sensor holder for YSI sensors of series 650, 690, 70X and 70X IQ	109 325Y



** UA-SO Sensor extension assembly with user-defined length: Additional costs depending on cable length.

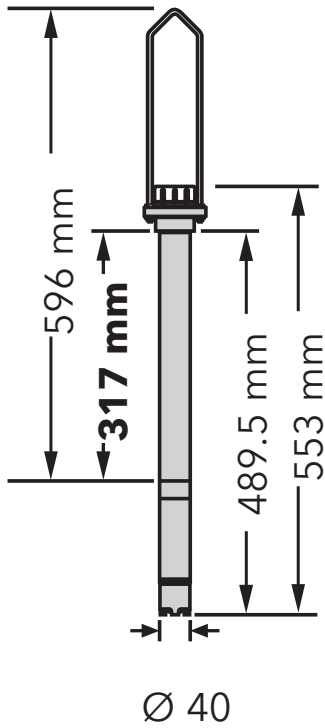
Sensor Extensions

Sensors not included with assemblies.

UA 55

Order No. 109 260Y

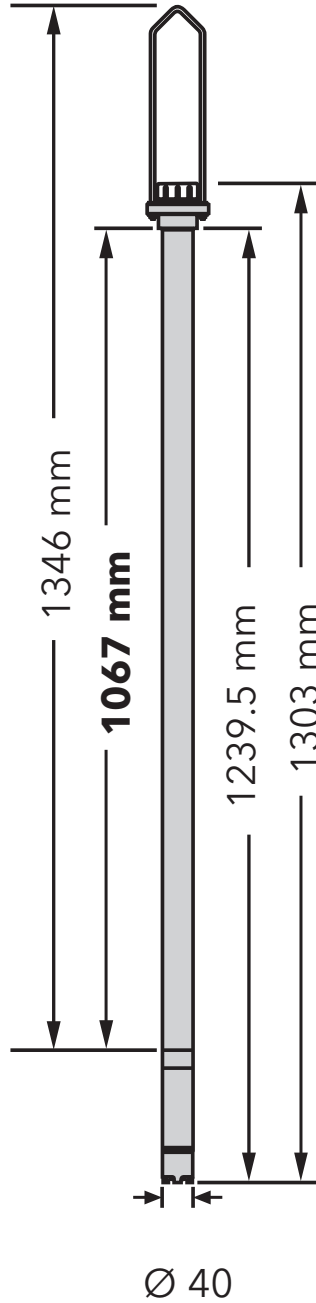
Equipped with oxygen sensor TriOxmatic® 700



UA 130

Order No. 109 261Y

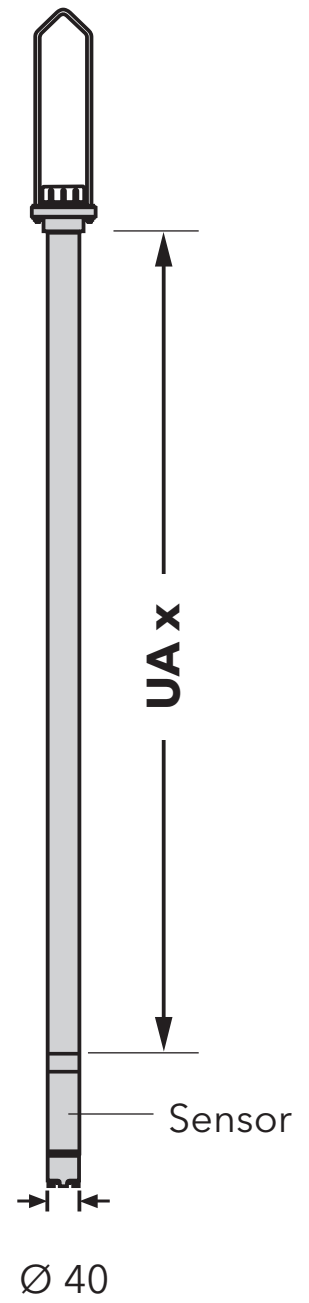
Equipped with oxygen sensor TriOxmatic® 700



UA-SO

Order No. 109 263VY**

Equipped with oxygen sensor TriOxmatic® 700



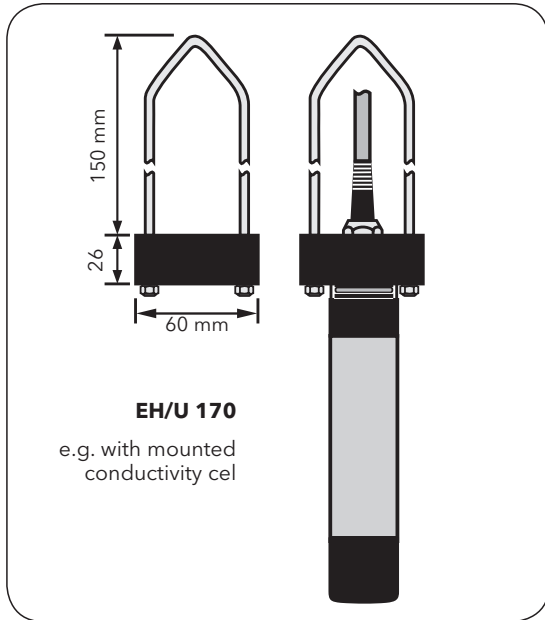
** UA-SO Sensor extension assembly with user-defined length: Additional costs depending on cable length.

Sensor Holders

EH/U 170

Single sensor holder
Material: POM and stainless steel (1.4571)

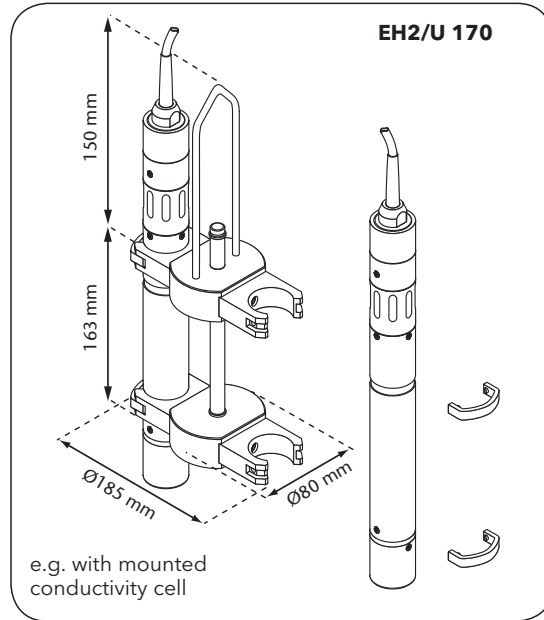
Order No. 109 320Y



EH2/U 170

Twin sensor holder
Material: POM and stainless steel (1.4571)

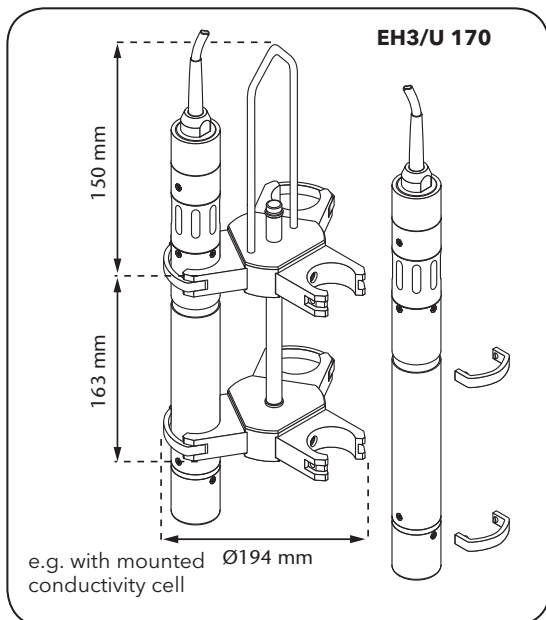
Order No. 109 323Y



EH3/U 170

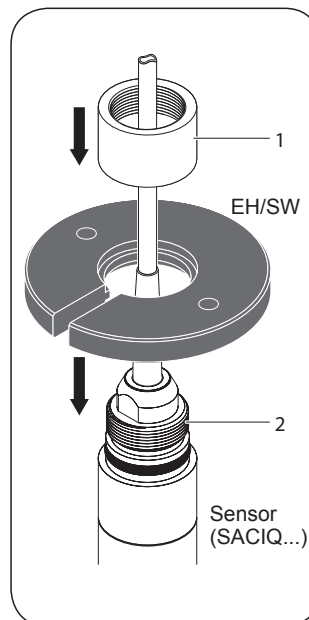
Triple sensor holder
Material: POM and stainless steel (1.4571)

Order No. 109 325Y



EH/SW

Order No. 109 317Y



EH2/U 170, equipped with pH- and oxygen sensor



Model	Description	Order No.
Mounting Hardware		
S 200	Float with pendulum mounting assembly for on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly or for spectral sensors with supplement kit VIS Set/EH for horizontal mounting.	108 540Y
S 200/2	Float with pendulum mounting assembly for 2 on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly.	108 542Y
GWA	Weight ring for S 200 float	109 232Y
EH/P 170	SensoClean pendulum mounting assembly for installation of on-line sensors with 40 mm (1.57 in) shaft diameter and UA armatures. Supplied with adjustable boom (620 mm/24.4 in), pendulum mounting assembly (stainless steel 1.4301), movable counterweight for fine adjustment	109 270Y
EH/R 170	Sensor holder for mounting of on-line sensors with 40 mm (1.57 in) shaft diameter, in a fixed distance to a rail. Supplied with pendulum head (POM) and 1580 mm (62.2 in) long outrigger pipe (stainless steel 1.4301). Without clamp set fixture (Please order BE/R 170 separately)	109 271Y
EH/F 170-1,5	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (4 m/13 ft) for use in wastewater and 1.5 m/4.9 ft boom (stainless steel 1.4301)	109 272Y
EH/F 170-2,5	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (5 m/16 ft) for use in wastewater and 2.5 m/8.1 ft boom (stainless steel 1.4301)	109 273Y
EH/W 170	Sensor fixture assembly for direct wall mounting of UA armatures and sensors of series 650/690/70X and 70X IQ	109 274Y
BE/M 170	Masonry fixture installation of EH-F 170 swing or EH/P 170 pendulum mounting assembly directly on the basin edge or on top of a wall	109 276Y
BE/R 170	Pipe fixture for installation of EH-F 170 swing or EH/P 170 pendulum mounting assembly directly to a pipe (e.g. basin railing)	109 278Y
BE/R 170-D	Swivel/pivot clamp fixture for mounting of a swing or pendulum mounting assembly directly to a pipe (e.g. basin railing)	109 279Y
BE/ST 170	Robust Vario floor mounting stand for installation on a concrete base etc. Supplied with joint-locking fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a sun shield, incl. aluminium diecast base, wallplugs and screws	109 280Y
BE/ST 170-R	Vario pipe mounting stand. Supplied with joint-locking fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a sun shield	109 281Y
BE/ST 170-M	Vario wall mounting stand. Supplied with joint-locking fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a sun shield	109 283Y
SD/K 170	Sun shield for outdoor installation of junction boxes (e.g. junction box KI/pH 170) or an IQ SENSORNET module	109 284Y
MR/SD 170	Mounting kit for attaching sun shields to pipes	109 286Y
MS/SD 170	Mounting kit for SSH/IQ sun shield to a mounting stand	109 288Y
MS/RKH 170	Pipe bracket for installation of a second sensor to a EH/P 170 pendulum mounting assembly (2 pieces required)	109 289Y
MS/KK 170	Double junction clamp for mounting of additional EH/F 170 swing or EH/P 170 pendulum mounting assembly to a Vario mounting stand BE/ST 170-X	109 290Y
CHS	Chain slide for EH/F 170-1.5 and EH/F 170-2.5	109 291Y
SSH/IQ	Sun shield for mounting of IQ SENSORNET modules and series 171/170 monitors to mounting stands	109 295Y
IN/SET1	Installation set for mounting of one on-line sensor. Supplied with: Single sensor holder EH/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109 304Y
IN/SET2	Installation set for mounting of up to two on-line sensors. Supplied with: Twin sensor holder EH2/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109 305Y
IN/SET3	Installation set for mounting of up to three on-line sensors. Supplied with: Tripple sensor holder EH3/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109 306Y
S/CH	Shackle for chain fitting	505 123Y
CH/SO	**** Chain per meter. High tensile strength and UV-resistant.	505 124Y

**** Chain per meter. Additional costs depending on chain length.

Fixtures

BE/R 170

Order No.: 109 278Y

With the BE/R 170 clamp set, a swing or pendulum mounting assembly can be fixed directly to a pipe; e.g. a handrail.

Material	Stainless steel 1.4301/diecast Al/POM
-----------------	---------------------------------------

BE/R 170-D

Order No.: 109 279Y

The swivel/pivot clamp fixture provides secure connection of a swing or pendulum mounting assembly to a horizontal pipe rail.

Material	Stainless steel 1.4301/diecast aluminum
-----------------	---

MR/SD 170

Order No.: 109 286Y

Mounting kit for sun shields, suitable for horizontal or vertical pipe rails with diameters of 0.98 to 2.36 in. (25 - 60 mm). Sun shield not included.

Material	Stainless steel 1.4301
-----------------	------------------------

BE/M 170

Order No.: 109 276Y

With the BE/M 170, a swing or pendulum mounting assembly can be inexpensively installed directly at the basin edge or on top of a wall. It consists of a flange clamp with a clamping lever and a bolt-on base plate.

Material	Stainless steel 1.4301/diecast Al/POM
-----------------	---------------------------------------

Sun Shields

SD/K 170

Order No.: 109 284Y

Sun shield for mounting a junction box or an IQ SENSOR NET module in the open air. Mounting kit MR/SD 170 is additionally required for attachment to vertical or horizontal pipes.

Dimensions	5.59 x 9.06 x 3.43 in. (142 x 230 x 87 mm) (H x W x D)
Material	Stainless steel, 1.4301

SSH/IQ

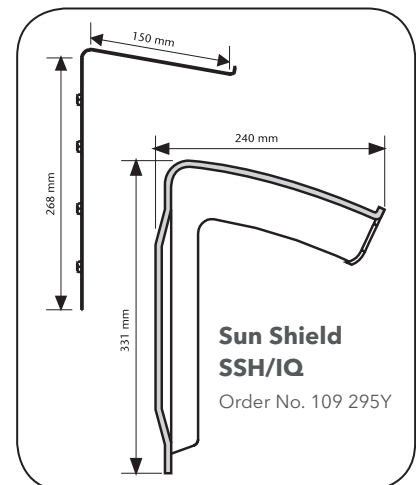
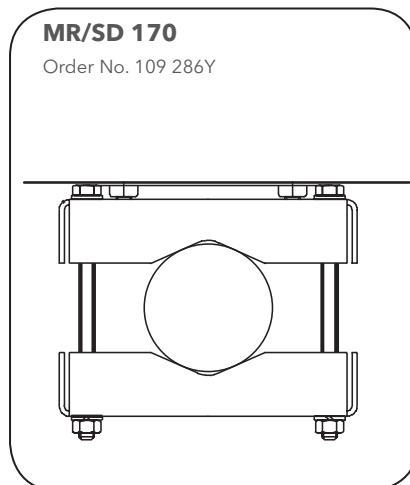
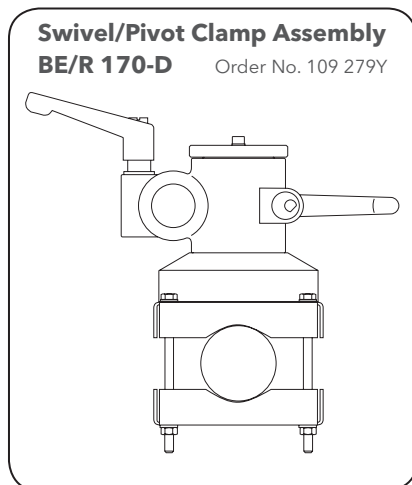
Order No.: 109 295Y

Sunshield for mounting series 171, 170 and IQ SENSOR NET monitors on a Vario Mounting Stand.

Dimensions	13.03 x 13.54 x 9.45 in. (331 x 344 x 240 mm) (H x W x D)
Material	ASA (Dust gray color)



IQ SENSORNET under sun shield SSH/IQ

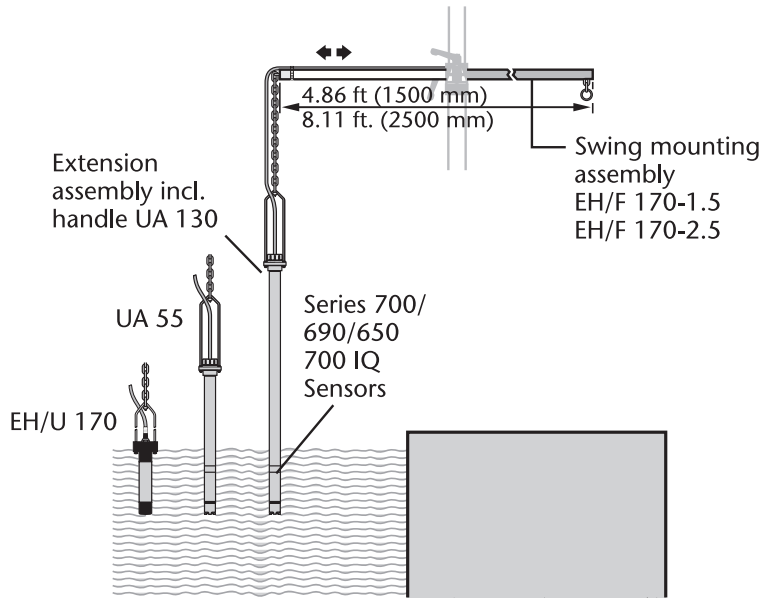


Mounting Hardware | Installation Flexibility

Measurements in Basins

Recommended sensor holding device:

Swing mounting assembly

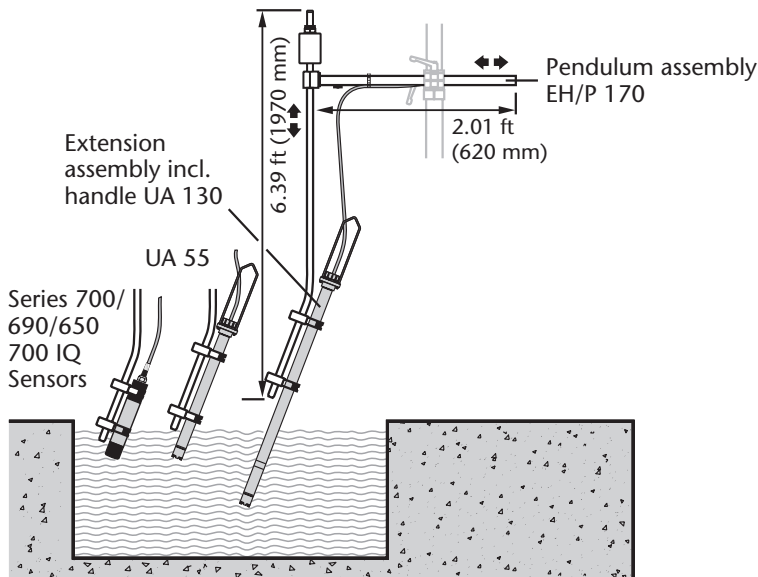


The YSI mounting hardware constitutes a flexible mechanical system in which the individual components are optimally matched. With the selection and combination of various sensor holders, mounting stands and fastening elements, tailor made solutions can be established for the appropriate configuration of the measuring stations; as the diagrams show.

Measurements in Open Channels

Recommended sensor holding device:

Pendulum assembly

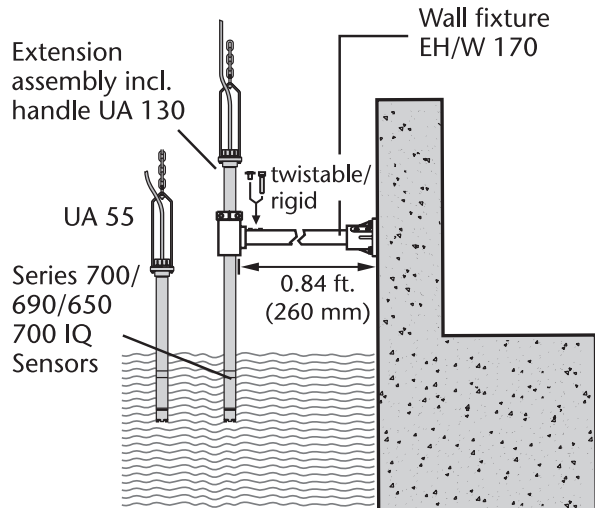


Pendulum rod shown 90° rotated

Measurements in Basins or in Open Channels

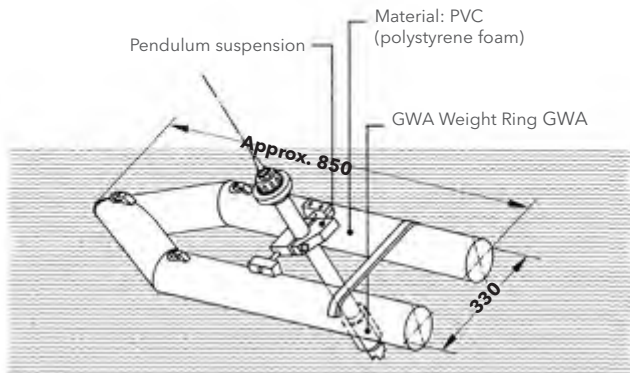
Wall mounting

for universal extension assemblies UA 55/ UA 130



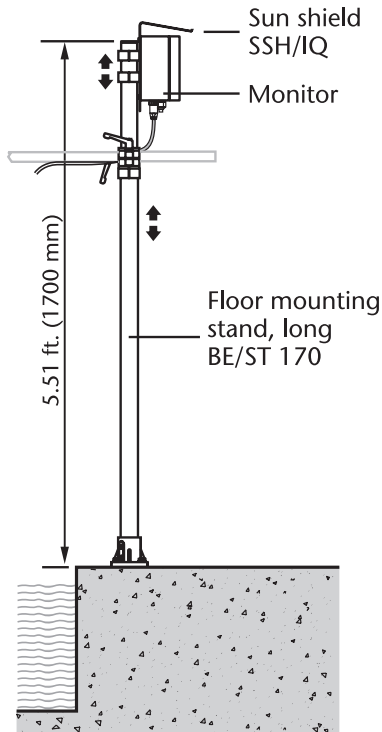
Measurements in very variable water levels or in rivers, lakes, etc.

Sensor Float S 200

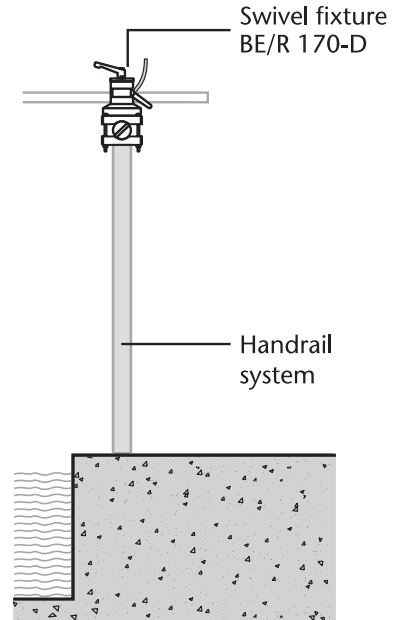


Mounting Stands and Fixtures

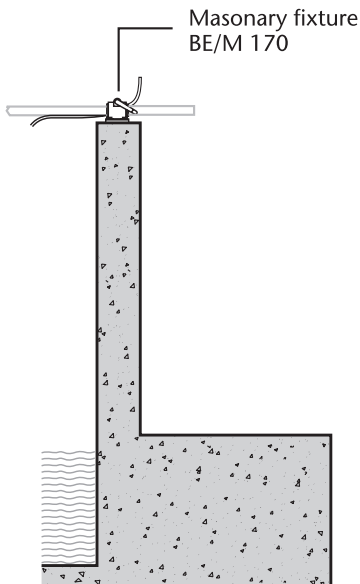
Floor Mounting Stand



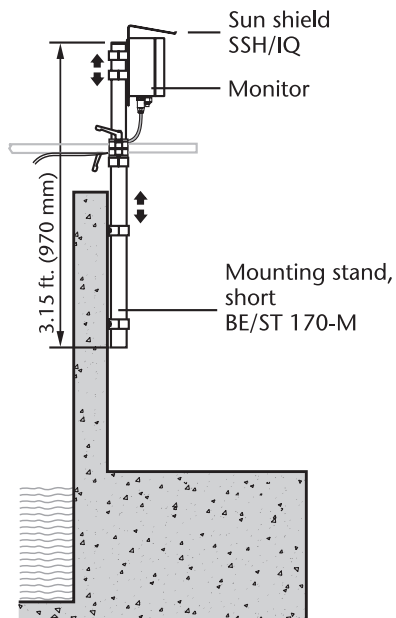
Handrail Mounting (swivel-mounted)



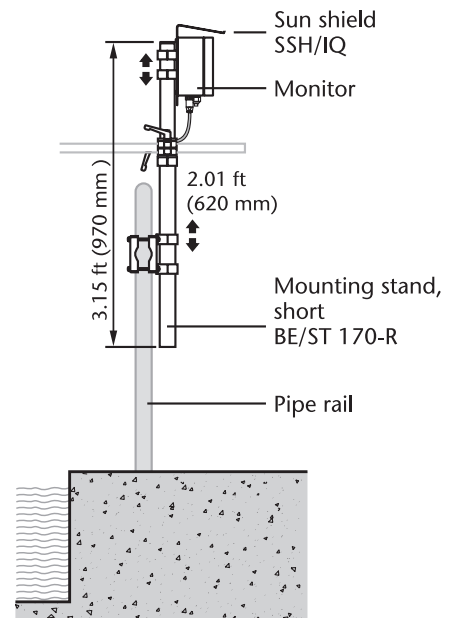
Top-of-Wall Mounting



Wall Mounting



Pipe Mounting



Sensor Holding Devices

EH/F 170

Order No.: 109 272Y, 109 273Y

The SensoClean swing mounting assembly consists of a 4.86 ft. or 8.11 ft. (1.5 or 2.5 m) long boom and a 13 ft. (4 m) long plastic chain for height adjustment of the sensor. It may also hold sensor extension assemblies. Particularly in turbulent flows, the freely swinging suspension produces a self-cleaning effect of the sensor, making the swing mounting especially suitable for operation in basins; e.g. in the aeration tank of a wastewater treatment plant.

Boom length	4.86 ft. or 8.11 ft. (1.5 or 2.5 m)
Material	Stainless steel 1.4301
Chain material	Polyethylene

EH/P 170

Order No.: 109 270Y

The SensoClean pendulum mounting assembly consists of a boom with a pendulum head and an angled pendulum rod. It is fitted at the top end with a movable counterweight for fine adjustment. The sensor or the extension assembly is fastened to the pendulum rod by two pipe clamps.

Boom	Length 2.01 ft. (620 mm), stainless steel 1.4301
Pendulum rod	Length 6.39 ft. (1970 mm), stainless steel 1.4301
Pendulum head, clamp	POM/Polyethylene

Vario Mounting Stand

BE/ST 170

Order No.: 109 280Y

Robust floor mounted stand made of stainless steel, with joint-locking fixture to accommodate a swing or pendulum mounting assembly and 2 pipe brackets for attaching a sun shield. With diecast aluminum baseplate, wall plugs and screws.

Stand	Length 5.51 ft. (1700 mm), diameter 1.97 in. (50 mm)
Material	Stainless steel 1.4301
Brackets	Polypropylene

EH/W 170

Order No.: 109 274Y

The EH/W 170 mounting assembly is designed for direct fastening to a wall of a basin. It can be set for pendulous or rigid operation, and it is suitable for extension assemblies. The immersion depth is adjusted by means of a fixing ring. Includes mounting plate with appropriate wall anchors and screws.

Boom	Length 0.84 ft. (260 mm), stainless steel 1.4301
Pendulum head	POM
Mounting plate	Diecast aluminum

S 200

Order No.: 108 540Y

The float with pendulum mounting assembly is available for use in flowing water or where the water level fluctuates considerably. The fixture is designed for extension assembly UA 55. A GWA weight ring is also required.

Dimensions	2.76 x 1.07 ft. (850 x 330 mm) (L x W)
Material	PVC

VIS Set-F

Order No.: 481 080Y

Supplemental kit for horizontal mounting of a UV(-VIS) sensor (NitraVis, CarboVis, NiCaVis). Particularly suitable for heavily fluctuating water levels in combination with the S 200 sensor float.

Material	PVC/POM
-----------------	---------

BE/ST 170-M

Order No.: 109 283Y

Mounting stand similar to model BE/ST 170, but shorter version for wall mounting. Wall mounting material is included instead of the baseplate.

Stand	Length 3.15 ft. (970 mm), diameter 1.97 in. (50 mm)
Material	Stainless steel 1.4301

BE/ST 170-R

Order No.: 109 281

This stand is similar to model BE/ST 170, but with hardware for fastening of the stand to a vertical or horizontal pipe rail.

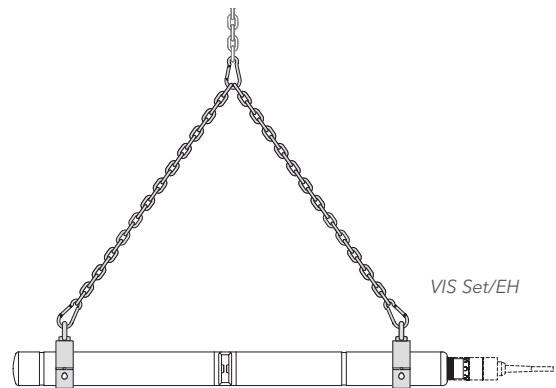
Stand	Length 3.15 ft. (970 mm), diameter 1.97 in. (50 mm)
Material	Stainless steel 1.4301

Model	Description	Order No.
Mounting Accessories 60 mm sensors (Spectral ; Sludge Level)		
S 200	Float with pendulum mounting assembly for on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly or for spectral sensors with supplement kit VIS Set/EH for horizontal mounting.	108 540Y
EH/F 170-1,5	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (4 m/13 ft) for use in wastewater and 1.5 m/4.9 ft boom (stainless steel 1.4301)	109 272Y
EH/SW	Single electrode holder in seawater design for direct mounting of series 650/690/70X and 70X IQ (SW) sensors	109 317Y
EH/U 170	Sensor holder for direct mounting of series 650/690/70X and 70X IQ sensors to a swing mounting assembly	109 320Y
EH/W 171	Pivot wall mount with 42 cm side arm for IQ sensors to pipes with 30 mm (1.18 in) diameter (EH/WT-D30, EH/WB please order separately)	109 360Y
EH/W 172	Fixed wall mount for IQ sensors to pipes with 30 mm (1.18 in) diameter (EH/WT-D30, EH/WB please order separately)	109 361Y
EH/WB	Sensor holder for sensor with 60 mm (2.36 in) diameter for attachment to pipes with 30 mm (1.18 in) diameter	109 362Y
EH/WT-D30	Pipe D30 x 2600 mm. Adaptable to EH/W 171, EH/W 172, IFL-RM, IFL-D	109 363Y
EH/W 173	Fixed wall mount with side arm for IQ sensors to pipes with 30 mm (1.18 in) diameter in combination with deflector armature IFL-E or sensor holder EH/WB (EH/WT-D30, IFL-E or EH/WB please order separately)	109 365Y
EH/W RM	Rail connection for wall mount EH/W 170 to EH/W 173	109 366Y
EH/WB-40	<i>New</i> Sensor holder for sensor with 60 mm (2.36 in) diameter for attachment to pipes with 40 mm (1.57 in) diameter	109 367Y
VIS FT-1	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480 080Y
VIS FT-1/RS	Spare part set for flow-thru measuring cell VIS FT-1	480 081Y
VIS Set/EH	Supplement kit I for spectral sensors for horizontal mounting of a UV/VIS sensor, with the EH/F 170 swing mounting assembly for use in basins or open channels.	481 073Y
VIS Set-F	Supplement kit for horizontal mounting of a UV-VIS/UV sensor. For use in variable water levels with the S 200 float.	481 080Y
IFL-E	Deflector armature for IFL 700 IQ and IFL 701 IQ for application with surface skimmers	481 206Y
IFL-RM	Rail mount for interface level sensors IFL 700 IQ and IFL 701 IQ in combination with deflector armature IFL-E. (EH/WT-D30, IFL-E please order separately)	481 207Y
IFL-PM	Set for installation on a rail cross for IFL 700 IQ and IFL 701 IQ (EH/WT-D30, IFL-E please order separately)	481 208Y

Holder for 60 mm Sensors (Spectral)

VIS Set/EH (shaded parts) Order No. 481 073Y

Supplement kit I for horizontal mounting of UV(VIS) sensors (NitraVis, CarboVis, NiCaVis, NiCaVis NI) with the EH/F 170 swing mounting assembly for use in basins or open channels.

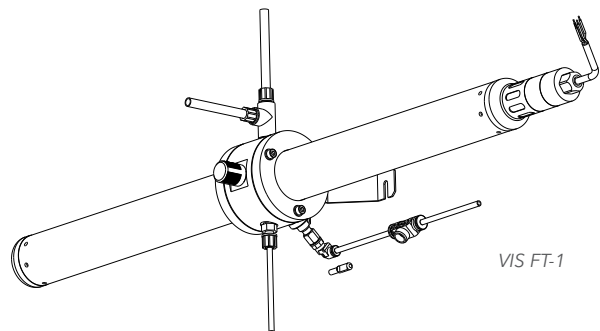


Flow-thru Vessels for 60 mm Sensors (Spectral)

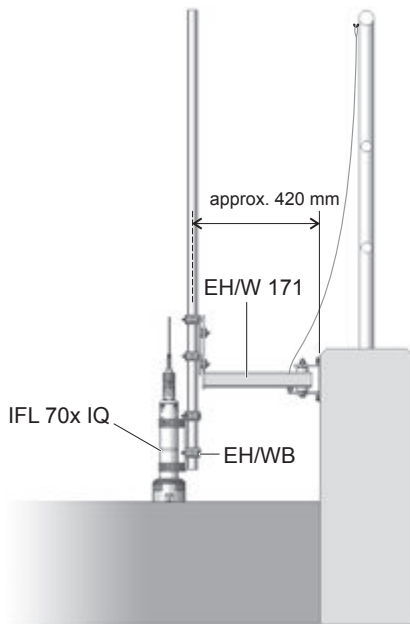
UV-VIS sensors in flow-thru measurement

VIS FT-1 Order No. 480 080Y

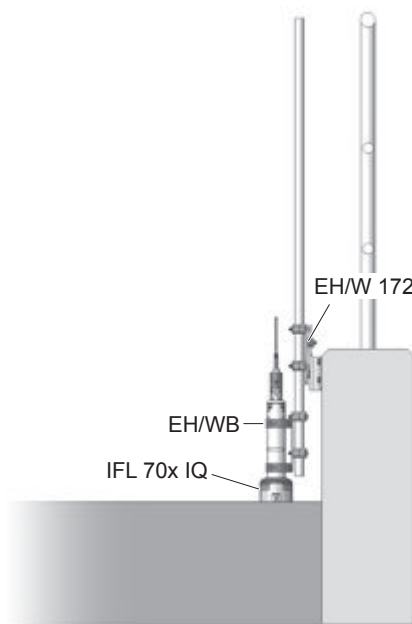
Flow-thru cell for UV/VIS sensors NitraVis/CarboVis (TS), NiCaVis 700 IQ and NiCaVis NI. The sensor can be cleaned automatically in mounted state by means of compressed air.



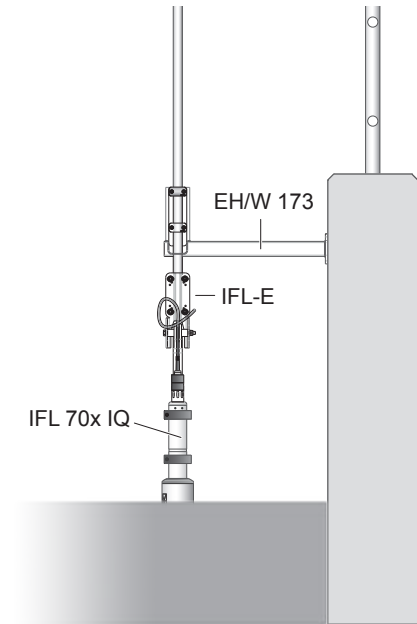
Mounting Systems for 60 mm Sensors (Spectral, UV 700 IQ SAC/NO_x, Sludge Level)



Swing wall mount
EH/W171 Order No. 109 360Y
 with side arm, usable in
 combination with
 EH/WB (Order No. 109 362Y)



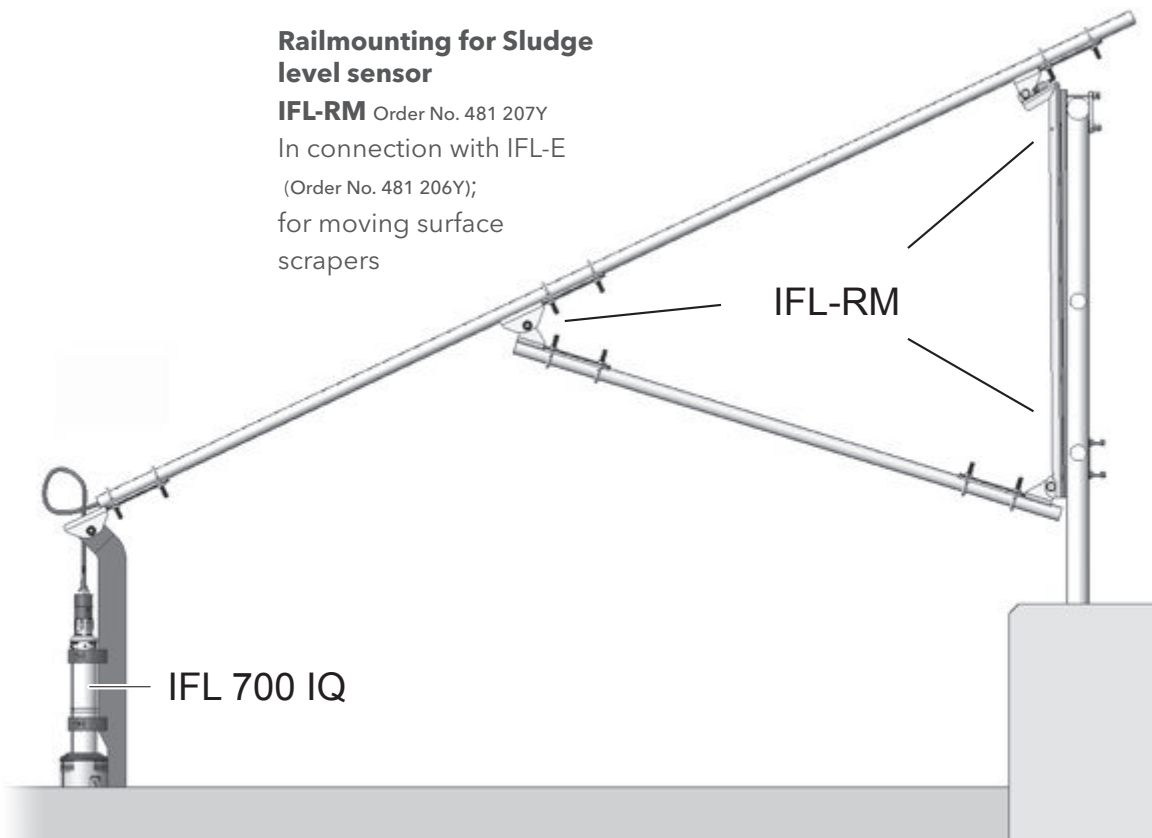
Wall mount
EH/W 172 Order No. 109 361Y
 usable in combination with
 EH/WB (Order No. 109 362Y)



Fixed wall mount
EH/W173 Order No. 109 365Y
 with side arm, usable in
 combination with IFL-E
 (Order No. 481 206Y) oder
 EH/WB (Order No. 109 362Y)

Railmounting for Sludge level sensor

IFL-RM Order No. 481 207Y
 In connection with IFL-E
 (Order No. 481 206Y);
 for moving surface
 scrapers



Accessories

Model	Description	Order No.
Flow-thru Armatures		
EBS 700-DU/N	Mounting set for measurements in pipelines, for all sensors of the 650/690/700(IQ)/701(IQ) series. Consisting of a bonded sleeve for standard 45° PVC T-piece (d 63 DN 50), O-ring seals and union nut. Please order suitable sensor adapter (ADA-XX) separately.	203 751Y
EBST 700-DU/N	Flow-thru adapter for measurements in pipelines, for all sensors of the 650/690/700(IQ)/701(IQ) series. Consisting of a 45° PVC T-piece (d 63 DN 50) with bonded sleeve. O-ring seals and union nut. Please order suitable sensor adapter (ADA-XX) separately.	203 753Y
EBST 700-DU/ND	Flow-thru adapter for measurements in pipelines with air pressure cleaning connection for use with sensors 70X, 70X IQ (pre-pressure max. 0.5 m water column) consisting of a PVC 45° T piece (d 63 DN 50) with bonded sleeve, O-ring seals and union nut, 2 x 180° shifted pressure cleaning injector with centric air-pressure connector 4/6 mm (max 6 bar). Please order suitable sensor adapter (ADA-XX) separately.	203 754Y
ESS 700 VA/N	Stainless steel (1.4571) weld-in socket, for measurements in pipelines, for use with all sensors of 650/690/700(IQ)/701(IQ) series. Please order suitable sensor adapter (ADA-XX) separately.	203 755Y
ESS 700 VA/10	Stainless steel weld-in socket, for measurements in pipelines with up to 10 bar pressure, useable for all series 650/690/700(IQ)/701(IQ) sensors. Please order suitable sensor adapter (ADA-XX) separately.	203 757Y
Flow-thru Vessels		
D 530	Flow-through vessel for pH combination electrodes (shaft diameter 12 mm/0.47 in), temperature sensor TFK 150 and TFK 530 and for conductivity cells LTA 01 and LR 325/01.	108 060Y
D 300/pH	Flow-thru vessel for pH/ORP and temperature measuring	108 073Y
D 700/N	Flow-thru vessel for multiparameter measurements, for use with: TriOxmatic® 690/700(IQ)/701(IQ), SensoLyt® SE/DW/EC/Pt, TetraCon® 325 and TFK 325. Please order suitable sensor flange separately	203 745Y
D 702/N	Flow-thru cell for continuous oxygen measurement, primarily for measurements in the ppb range with TriOxmatic® 702 (IQ). Also useable for TriOxmatic® 690/700/700 IN/701 (IQ). Please order suitable sensor flange separately	203 747Y
DMS/N	Universal flow-thru vessel for multiparameter measurements with up to four sensors, e.g. for use in the discharge of a waste water treatment plant. Please order suitable sensor flange separately	203 749Y

Flow-thru Adapters

EBST 700-DU/N and EBST 700-DU/ND

Order No.: 203 753Y

Order No.: 203 754Y

Flow-thru adapter for measurements in pipelines, consisting of a 45° PVC T-piece (d 63 DN 50) with bonded sleeve, O-ring seals and union nut. The adapter must be completed by the selection of a suitable sensor flange from the table on page 114 and can then be used for measurement of pH, oxygen, temperature and conductivity with all current WTW sensors. EBST 700-DU/ND additionally features a compressed-air connection for cleaning installed sensors. Selection of sensors acc. table on page 114.

Max. pressure	3 bar (EBST 700-DU/N) or 0.2 bar (EBST 700-DU/ND)
Max. temperature	122 °F (50 °C)
Material	PVC/POM

EBS 700-DU/N

Order No.: 203 751Y

Mounting set for flow-thru measurements, consisting of a bonded sleeve for standard 45° PVC T-pieces (d 63 DN 50) or other suitable pipeline systems, one R 2" union nut and the necessary O-ring seals. Please select an adapter from the table on page 114.

Max. pressure	3 bar
Max. temperature	122 °F (50 °C)
Material	PVC/POM

ESS 700 VA/N

Order No.: 203 755Y

Stainless steel weld-in socket, for measurements in pipelines. Please select an adapter from the table "Flow-thru Adapters".

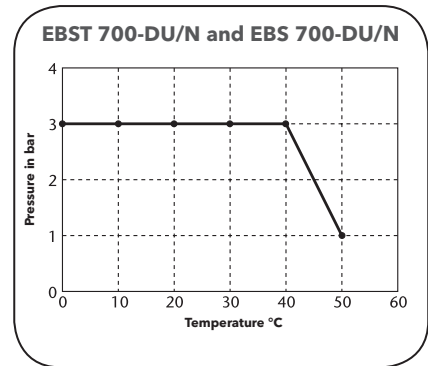
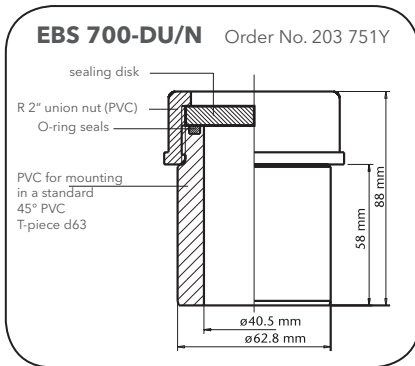
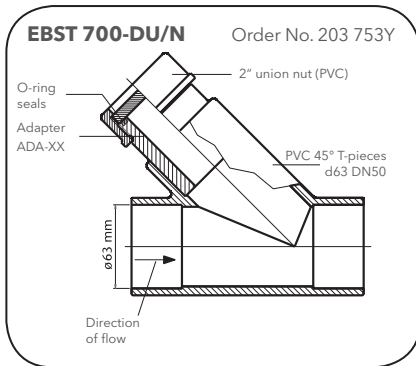
Max. pressure	3 bar
Max. temperature	122 °F (50 °C)
Material	
Weld-in socket	V4A stainless steel 1.4571
Union nut	PVC/U
Total length	5.59 in. (142 mm)
Outside diameter	2.36 in. (60 mm)

ESS 700 VA/10

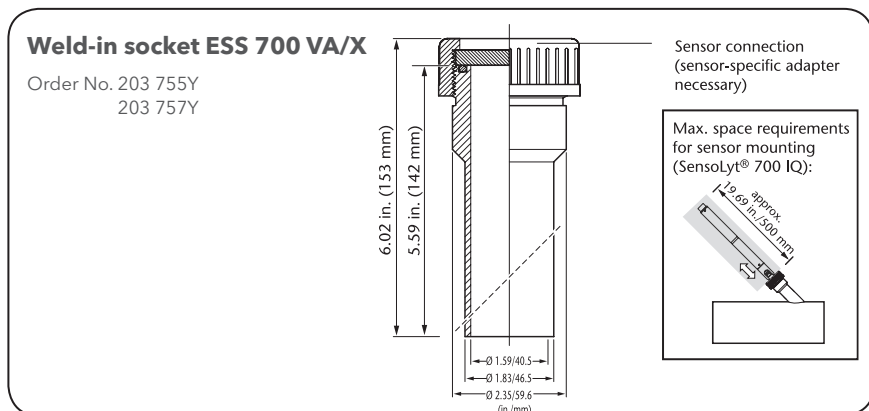
Order No.: 203 757Y

Stainless steel weld-in socket, for measurements in pipelines. Please select an adapter from the table "Flow-thru Adapters".

Max. pressure	10 bar
Max. temperature	140 °F (60 °C)
Material	
Weld-in socket	V4A stainless steel 1.4571
Union nut	V4A stainless steel 1.4571
Total length	5.59 in. (142 mm)
Outside diameter	2.36 in. (60 mm)



Configuration of the adapter according to table "Flow-thru Adapters".



ESS 700 VA/10

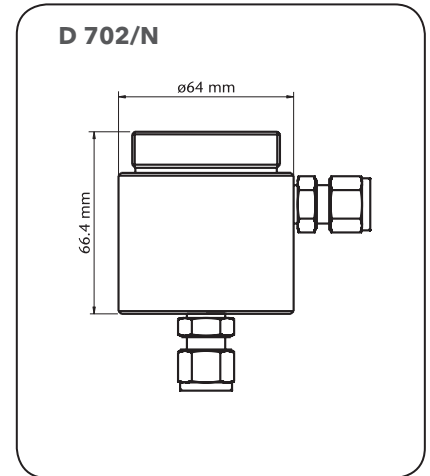
Oxygen Flow-Thru Measurement

D 702/N

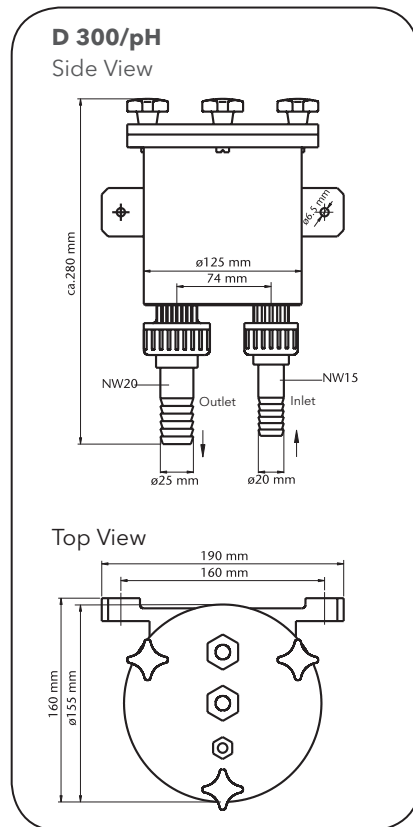
Order No. 203 747Y

In principle the flow-thru vessel D 702/N for continuous oxygen measurement can be fitted with all TriOxmatic® sensors of the 690/700/701 (IQ) series. However, it is primarily intended for oxygen measurements in the ppb range (TriOxmatic® 702 IQ), e.g. boiler feed water. In this application the flow-thru vessel is usually installed in the bypass of a water circulation system. Please select an adapter from the selection table.

Cell volume:	Approx. 120 ml
Min. flow rate:	100 ml/min
Max. pressure:	145 psi (10 bar)
Max. temperature:	122 °F (50 °C)
Inlet/outlet:	Hose clamp connection, 0.31in. (8 mm)
Material:	
Flow-thru vessel:	Stainless steel, V4A, 1.4571
Union nut:	POM
Dimensions:	2.60 x 2.52 in. (66 x 64 mm) (L x D)



pH/ORP/Conductivity Measurement



D 300/pH

Order No. 108 073Y

Flow-thru vessel for unpressurized applications with pH/ORP electrodes of type SensoLyt® SE/DW/EC/Pt (2 x M20 x 1.5; clamping range 0.28-0.51 in./7-13 mm) and one TFK-150/325 Temperature sensor (1 x M12 x 1,5; clamping range 0.12-0.28 in. /3-7 mm).

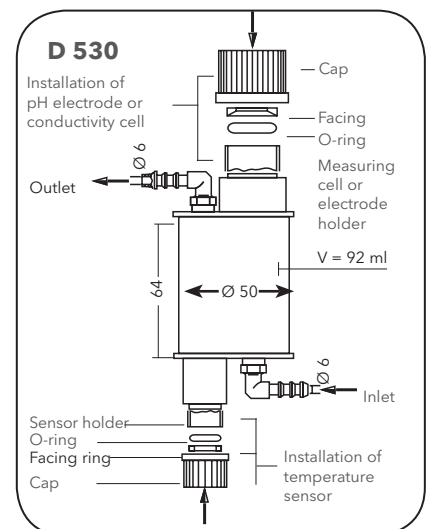
Vessel volume:	Approx. 1200 ml
Min. flow rate:	Approx. 1 l/min.
Max. pressure:	< 15psi (< 1 bar)
Inlet/Outlet:	Hose connection with nominal width of 0.59 and 0.98 in. (15 and 24.9 mm), resp.
Material:	PVC
Dimensions:	Approx. 11.02 x 7.48 in. (280 x 190 mm, H x W)

D 530

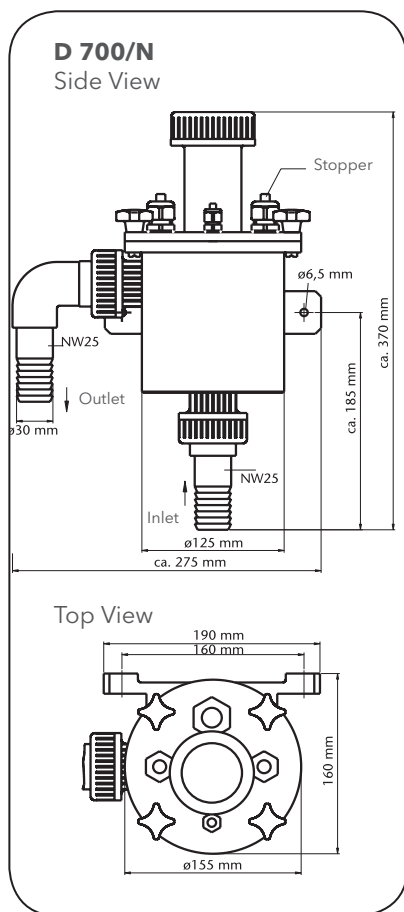
Order No. 108 060Y

Transparent flow-thru vessel for installation of pH electrodes or conductivity cells with 0.47 or 0.51 in. (12 or 13 mm) diameter, and temperature sensors with 0.24 in. (6 mm) diameter.

Vessel volume:	Approx. 95 ml
Min. flow rate:	Approx. 20 - 50 ml/min.
Max. pressure:	< 15 psi (< 1 bar)
Inlet/Outlet:	Hose connection dia. 0.24 in. (6 mm)
Material:	PVC, transparent
Dimensions:	3.11 x 1.97 in. (79 x 50 mm, H x W, without connectors)



Multiparameter Measurement



D 700/N

Order No. 203 745Y

PVC flow-thru vessel for unpressurized measurements with various sensors. The D 700/N can accommodate up to the following number of sensors: 1 D.O. sensor TriOxmatic® 690/700/701/ CellOx® 700 (IQ) (central bore; dia. 40,5 mm), pH/ORP electrodes type SensoLyt® SE/DW/EC/Pt (M20 x 1.5; clamping range 7-13 mm), 1 conductivity cell e.g. TetraCon® 325 (M25 x 1.5; clamping range 9-13 mm), 1 temperature sensor e.g. TFK 325 (M12 x 1.5; clamping range 3-7 mm). Instead of the TriOxmatic® sensor a conductivity sensor type TetraCon® 700 (IQ) can also be mounted. Configuration of the adapter according to table: flow-thru adapters

Vessel volume:	Approx. 1100 ml
Min. flow rate:	2 - 7 l/min. (depending on sensor)
Max. flow rate:	30 l/min.
Max. pressure:	< 15 psi (< 1 bar)
Inlet/Outlet:	Hose connection; nominal dia. 1.18 in. (30 mm)
Material:	PVC
Dimensions:	14.57 x 10.83 x 6.30 in. (370 x 275 x 160 mm, H x W x D, incl. connectors)

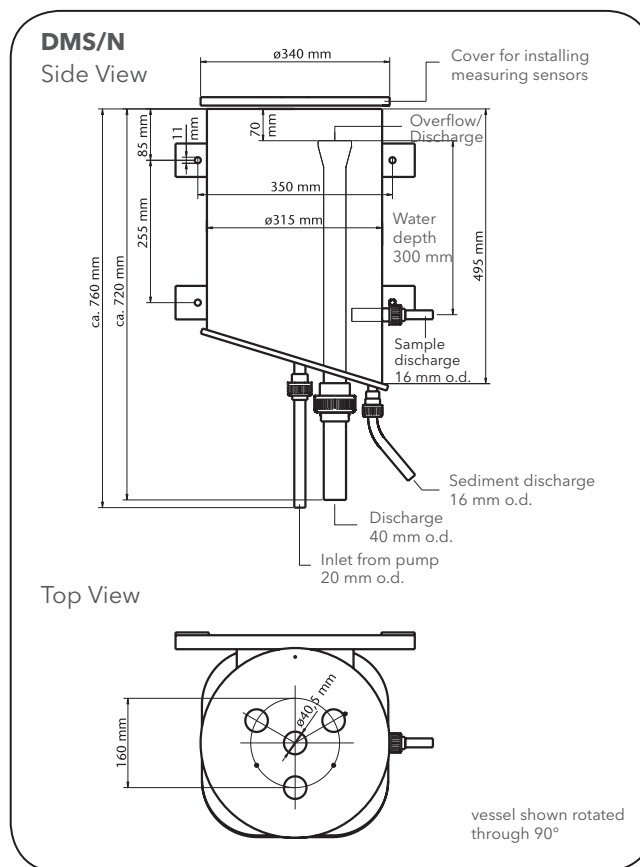
DMS/N

Order No. 203 749Y

The DMS/N flow-thru vessel was designed specifically for use in monitoring stations. Up to 4 sensors, each with a diameter of 40 mm, can be mounted in the lid of the vessel for measurement of oxygen, pH/ORP, conductivity and/or turbidity. The sample flow is continuously supplied to the vessel by a small submersible pump (not included), and exits through an overflow. If in addition analyzers are installed in the station, they can be supplied with samples from the flow-thru vessel.

Vessel volume:	Approx. 27 l
Min. flow rate:	150 - 200 l/hr
Max. flow rate:	Approx. 1500 l/hr
Max. pressure:	< 15 psi (< 1 bar)
Inlet/outlet:	Hose connection Ø 0.79 resp. 1.57 in. (20 mm resp. 40 mm)
Material:	PVC
Dimensions:	Approx. 19.49 x 15.39 in. (495 x 340 mm, H x W, without connectors)

Configuration of the adapter according to table: flow-thru adapters



Model	Description	Order No.
Flow-thru Adapters		
ADA-DF 1	Adapter for mounting IQ sensors for measuring of pH/ORP, conductivity and D.O. in D 700/N or DMS/N flow-thru vessels	203 761Y
ADA-DF 4	Adapter for mounting D.O. sensors TriOxmatic® 702 and TriOxmatic® 702 IQ in D 702/N flow-thru vessel	203 767Y
ADA-DF 6	Adapter for mounting D.O. sensor TriOxmatic® 702 IQ in flow-thru vessel D 702/N	203 771Y
ADA-DF 7	Adapter for mounting turbidity sensor VisoTurb® 700 IQ in DMS/N flow-thru vessel	203 773Y
ADA-DF 9	Adapter for mounting IQ sensors for pH/ORP, D.O., conductivity, turbidity and suspended solids in flow-thru vessels EBS(T)700-DU/N or ESS 700-VA/N	203 777Y
ADA-DF 10	Adapter for mounting of pH/ORP armature SensoLyt® 690/700 in flow-thru vessels EBS(T)700-DU/N or ESS 700-VA/N	203 779Y
ADA-DF 11	Adapter for mounting IQ sensors for pH/ORP, D.O., conductivity, turbidity and suspended solids in ESS 700 VA/10 weld-in socket	203 781Y
ADA-DF 14	Adapter for mounting IQ sensor FDO®700 IQ in flow-thru vessel D 700/N	203 787Y
ADA-DF 15	Adapter for mounting IQ sensor FDO®700 IQ in flow-thru vessels EBS 700-DU/N, EBST 700-DU/N and ESS 700 VA/N	203 789Y

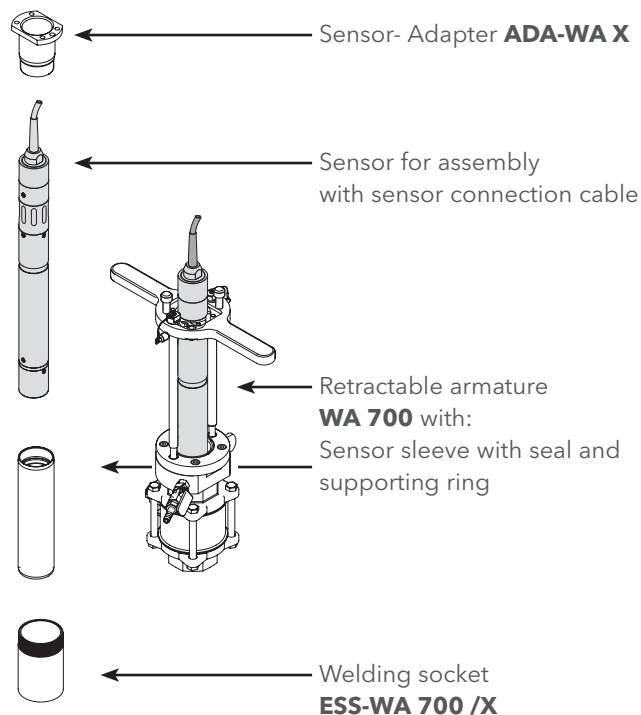
Flow-thru Adapters											
	Flow-thru Vessels										
	D 700/N Flow-thru vessel Order No. 203 745Y	D 702/N Flow-thru vessel Order No. 203 747Y	DMS/N Flow-thru vessel Order No. 203 749Y	EBS 700-DU/N Flow-thru adapter Order No. 203 751Y	EBST 700-DU/N Flow-thru adapter Order No. 203 753Y	EBST 700-DU/ND Flow-thru adapter Order No. 203 754Y	ESS 700 VA/N Welding socket Order No. 203 755Y	ESS 700 VA/10 * Welding socket Order No. 203 757Y	WA 700/2 Retractable armature Order No. 480 102Y	WA 700/10 * Retractable armature Order No. 480 100Y	
TriOxmatic® 690/700/ 700 IN/ 701/702 **	ADA-DF3 203 765Y	ADA-DF4 203 767Y	ADA-DF3 203 765Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF12 203 783Y	ESS-WA 700/X 480 10XY ADA-WA2 480 110Y	ESS-WA 700/X 480 10XY ADA-WA2 480 110Y	
TetraCon® 700	ADA-DF3 203 765Y		ADA-DF3 203 765Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF8 203 775Y	ADA-DF12 203 783Y	ESS-WA 700/X 480 10XY ADA-WA2 480 110Y	ESS-WA 700/X 480 10XY ADA-WA2 480 110Y	
SensoLyt® 650/690/700	ADA-DF2 203 763Y		ADA-DF10 203 779Y	ADA-DF10 203 779Y	ADA-DF10 203 779Y	ADA-DF10 203 779Y	ADA-DF10 203 779Y	ADA-DF13* 203 785Y	ESS-WA 700/X 480 10XY ADA-WA3 480 112Y	ESS-WA 700/X 480 10XY ADA-WA3* 480 112Y	
VisoTurb® 700 IQ			ADA-DF7 203 773Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	
ViSolid® 700 IQ			ADA-DF7 203 773Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	
TetraCon® 700 IQ	ADA-DF1 203 761Y		ADA-DF1 203 761Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	
SensoLyt® 700 IQ	ADA-DF1 203 761Y		ADA-DF1 203 761Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11* 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1* 480 108Y	
TriOxmatic® 700 IQ/701 IQ	ADA-DF1 203 761Y	ADA-DF4 203 767Y and ADA-DF6 203 771Y	ADA-DF1 203 761Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	
TriOxmatic® 702 IQ		ADA-DF4 203 767Y and ADA-DF6 203 771Y		ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF9 203 777Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	ESS-WA 700/X 480 10XY ADA-WA1 480 108Y	
FDO 700 IQ/701 IQ	ADA-DF14 203 787Y		ADA-DF1 203 761Y	ADA-DF15 203 789Y	ADA-DF15 203 789Y	ADA-DF15 203 789Y	ADA-DF15 203 789Y	ADA-DF11 203 781Y	ESS-WA 700/X 480 10XY ADA-WA4 480 114Y	ESS-WA 700/X 480 10XY ADA-WA4 480 114Y	
AmmoLyt® Plus 700 IQ NitraLyt® Plus 700 IQ VARiON® Plus 700 IQ	ADA-DF1 203 761Y if < 0.2 bar is met		ADA-DF1 203 761Y if < 0.2 bar is met	ADA-DF9 203 777Y if < 0.2 bar is met	ADA-DF9 203 777Y if < 0.2 bar is met	ADA-DF9 203 777Y if < 0.2 bar is met	ADA-DF9 203 777Y if < 0.2 bar is met				

ADA-DFX	Configuration recommended
	Configuration possible (check sensor specs and application)
	Configuration not intended

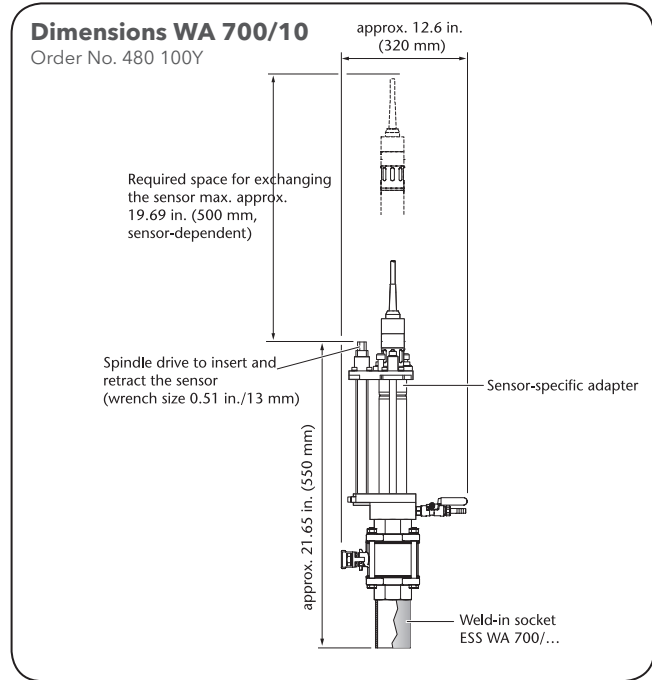
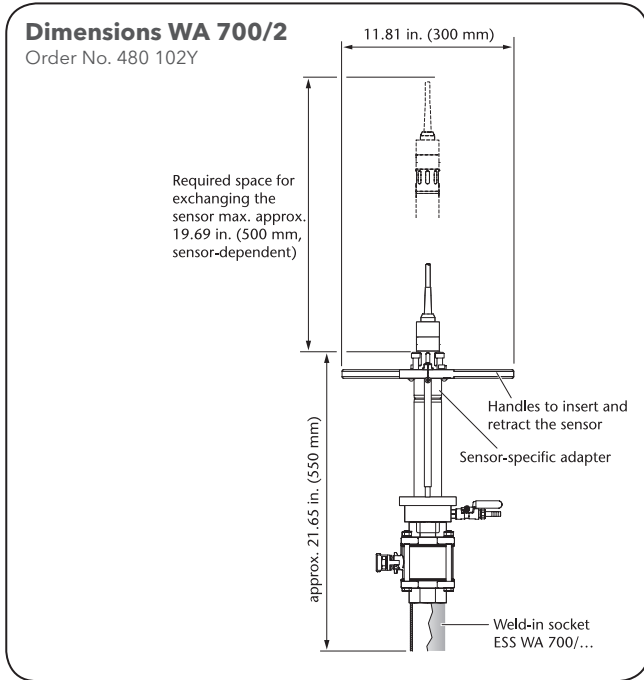
* with electrode SensoLyt® SEA-HP
** only for flow-thru vessel D 702/N

Model	Description	Order No.
Retractable Armatures		
WA 700/10	Retractable armature for measurements in pipelines, with up to 10 bar overpressure, for use with all series 650/ 690/700(IQ)/701(IQ) sensors. Consisting of a pre-assembled armature with ball valve, mounting aid up to 10 bar, rinsing connectors and a sensor sleeve with sealings and retainer rings. Please order suitable sensor adapter separately.	480 100Y
WA 700/2	Retractable armature for measurements in pipelines, with up to 2 bar overpressure, for use with all series 650/ 690/700(IQ)/701(IQ) sensors. Consisting of a pre-assembled armature with ball valve, mounting aid up to 2 bar, rinsing connectors and a sensor sleeve with sealings and retainer rings. Please order suitable sensor adapter separately.	480 102Y
ESS-WA 700/ST	Steel (St 33) weld-in socket for WA 700/2 und WA 700/10 retractable armatures	480 104Y
ESS-WA 700/VA	Stainless steel (1.4571) weld-in socket for WA 700/2 und WA 700/10 retractable armatures	480 106Y
ADA-WA 1	Adapter for mounting of IQ sensors for pH/ORP, conductivity, D.O., turbidity and TSS into WA 700/2 and WA 700/10 retractable armatures	480 108Y
ADA-WA 3	Adapter for mounting of pH/ORP armature SensoLyt® 650/690/700 into WA 700/2 and WA 700/10 retractable armatures	480 112Y
ADA-WA 4	Adapter for mounting of IQ sensor FDO®700 IQ into WA 700/2 and WA 700/10 retractable armatures	480 114Y
WA/BV	Blind plug for weld-in socket fittings ESS-WA 700/ST and ESS-WA 700/VA	480 116Y
WA/Epack	Spare set of O-ring seals for retractable armatures WA 700/2 and WA 700/10	480 118Y

Retractable Armatures



Technical Data Retractable Armatures		
	WA 700/2	WA 700/10
Max. Pressure	2 bar (overpressure)	10 bar (overpressure)
Max. Temperatur	140 °F (60 °C)	
Material	Wetted parts: Stainless steel (1.4571 or 1.4408) O-rings: FPM (Viton) Seals ball valve: PTFE (Teflon)	
Total Length	21.26 in. (540 mm)	
Outer Diameter	Incl. mounting aid: 11.81/12.60 in. (300/320 mm)	



Model	Description	Order No.
Cleaning System		
DIQ/CHV	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472 007Y
Cleaning Air Box - 115 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480 017Y
MIQ/CHV PLUS	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSORNET (relay and compressed air supply external)	480 018Y
Cleaning Air Box - 230 VAC	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480 019Y
AF/Cleaning Air Box	Air intake filter for Cleaning Air Box. For the removal of particles to maintain the compressor.	480 026Y
RM/Cleaning Air Box	Replacement membrane for compressor in Cleaning Air Box. The membrane should be replaced after 5000 h of operation time or after 5 years.	480 027Y
CH	Cleaning head for on-line sensors with 40 mm diameter. Supplied with 15 m (49 ft) compressed air tube.	900 107Y
CH/EpacK	Spare part set for cleaning head	900 111Y

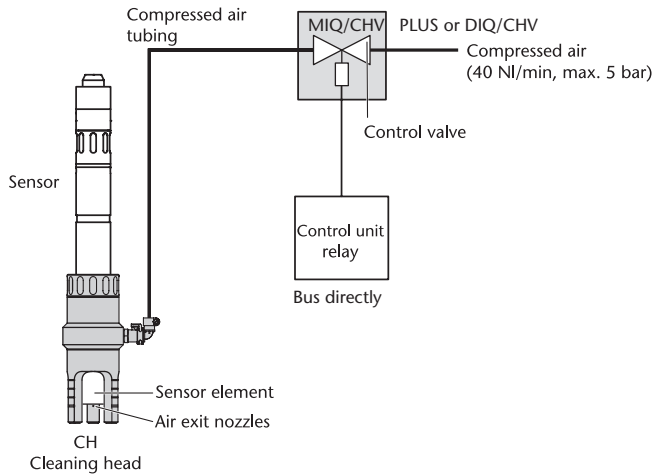
Cleaning System

For a continuous compressed-air cleaning system there are two options:

Option 1:

Compressed-air supply is provided at the plant. You require the following components

- Cleaning head CH
- Valve module (MIQ/CHV PLUS or DIQ/CHV)



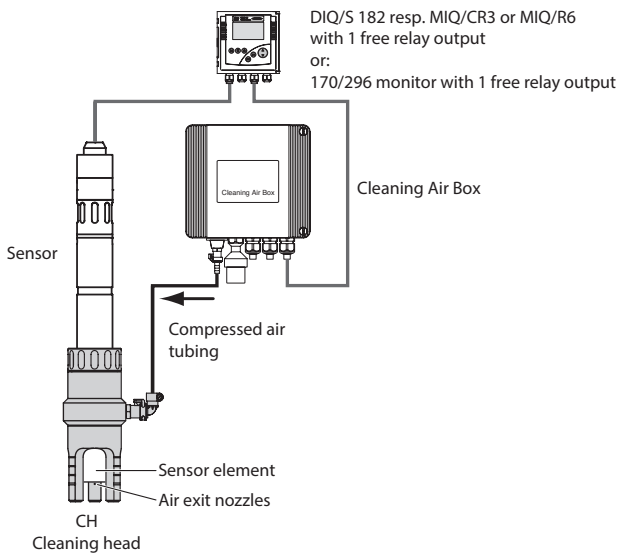
Efficient compressed air cleaning put into practice:



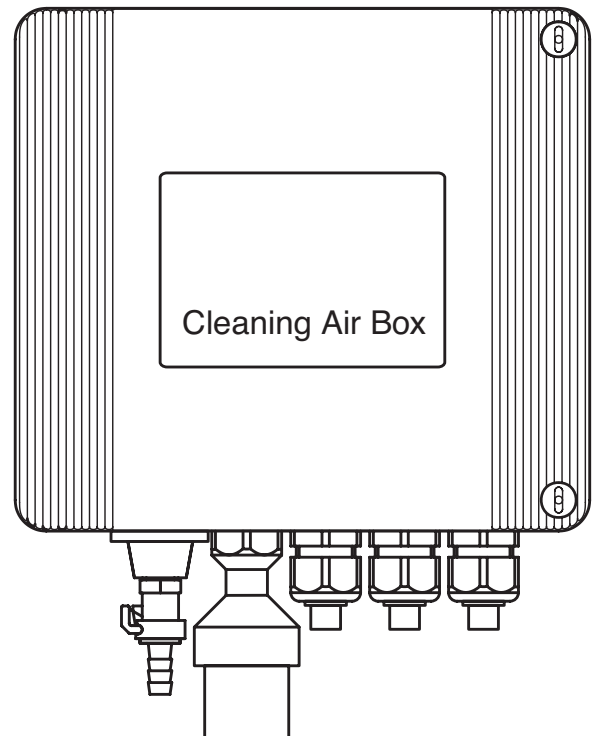
Option 2:

Compressed-air supply is not provided at the plant. You require the following components

- Cleaning head CH
- Cleaning Air Box
- Monitor with relay output



Cleaning Air Box



Various Products

Model	Description	Order No.
Controller (without terminal) and modules IQ SENSORNET		
MIQ/MC3	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, in module housing, with automatic air pressure compensation, USB interface (IP67), Ethernet RJ45 interface (IP 67)	471 01Y5
MIQ/MC3-MOD	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, with MODBUS connection, automatic air pressure compensation as well as USB interface (IP 67) and Ethernet interface (IP 67) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 016Y
MIQ/MC3-PR	Module IQ/microcontroller for system 2020 XT, for up to 20 IQ sensors, with PROFIBUS connection, automatic air pressure compensation as well as USB interface (IP 67) and Ethernet interface (IP 67) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 017Y
MIQ/2-MOD	Module IQ with MODBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 XT) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 018Y
MIQ/2-PR	Module IQ with PROFIBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 XT) (Please order separately D-SUB connection ADA/D-SUB 902888)	471 019Y
Various armatures and adapter		
EBST/SW	Flow-thru adapter for measurements in pipelines, for all sensors in seawater design of the 700 IQ SW / 701IQ SW series. Consisting of a 45° PVC T-piece (d 110 DN 90) with bonded sleeve O-ring seals and union nut. Please order suitable sensor adapter separately.	203 758Y
ADA-DF 2	Adapter for mounting pH/ORP-probe SensoLyt® 650/690/700 in D 700/N flow-thru vessel	203 763Y
ADA-DF 3	Adapter for installation of SensoLyt® 650/690/700 sensors in D 700/N or DMS/N flow-thru vessels	203 765Y
ADA-DF 8	Adapter for mounting sensors TriOxmatic® 690/70X CellOx® 700 and TetraCon® 700 in flow-thru vessels EBS(T) 700-DU/N or ESS 700-VA/N	203 775Y
ADA-DF 12	Adapter for mounting sensors TriOxmatic® 690/ 70X, CellOx® 700 and TetraCon® 700 in ESS 700 VA/10 weld-in socket	203 783Y
ADA-DF 13	Adapter for mounting of pH/ORP armature SensoLyt® 690/700 in ESS 700 VA/10 weld-in socket	203 785Y
ADA-DF9/SW	Adapter for mounting IQ sensors in seawater design in the Flow-thru adapters EBST/SW or EBST-D/SW	203 790Y
ADA-3/4" NPT	V4A-stainless steel (1.4571) muffle ½ inch NPT to ¾ inch NPT screw thread	303 201Y
ADA-WA 2	Adapter for mounting of IQ sensors TriOxmatic® 690/70X and TetraCon® 700 into WA 700/2 and WA 700/10 retractable armatures	480 110Y
Additional Products		
SD/M 170-D	Stainless steel double sun shield for mounting of 2 monitors to a Vario mounting stand (BE/ST 170-X)	109 287Y
IS/OXI/SET	D.O. simulator for TriOxmatic® 600../700..sensors (Necessary: Accurate separate barometer)	201 291Y
WP-C-700/2	Exchange membrane heads (2 pcs) for D.O. sensors CellOx® 700	202 854Y
MSK 600	Membrane protective cap, provides protection against fishes and rock slide etc. for TriOxmatic® 690/70X and 70X IQ series	205 251Y
SACIQ-75,0 SW	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSORNET system. Cable length: 75 m (243 ft), with screwable SACIQ-Plug	480 067Y
IFL-D	Deflector armature for IFL 700 IQ and IFL 701 IQ for application with surface skimmers	481 205Y

Model	Description	Order No.
Specific Accessories for ISE Sensors (Former models)		
AmmoLyt NHA	Reference electrode for on-line measuring of ammonium, with armoring for mounting into AmmoLyt® 700 IQ sensor (Attention: not for AmmoLyt®Plus 700 IQ!).	107 004Y
NitraLyt NOA	Reference electrode for on-line measuring of nitrate, with armoring for mounting into NitraLyt® 700 IQ sensor (Attention: not for NitraLyt®Plus 700 IQ!).	107 024Y

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services, and agricultural settings. With its October 2016 acquisition of Sensus, Xylem added smart metering, network technologies and advanced data analytics for water, gas and electric utilities to its portfolio of solutions. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com



a xylem brand

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